Line Thermal Printer

STAR Line Mode Command Specifications

Rev 0.00

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This specifications document describes the command specifications for the STAR LINE MODE on line thermal printers. Information contained herein applies to models with the following conditions.

- Line thermal printers
- Interfaces:
    - Parallel
    - RS-232C
    - USB
    - Ethernet

< Applicable Models:>
TSP700
TSP600
TSP800
TUP900

1. INTERFACE CONFIGURATION

1-1) RS-232C Serial Interface

1-1-1) Specifications (Conforming to RS-232)

Rating: RS-232C
Synch method: Start-Stop synchronization method
Handshake: DTR mode
Baud rates: 4800, 9600, 19200 bps (Set by DIP switches)
Bit length: 7, 8 bits (Set by DIP switches)
Parity: Yes/No (Set by DIP switches)
Parity bit: Odd/even (Set by DIP switches)
Stop bit: 1 bit (Fixed)
Signal polarity: Mark = logic 1 (-3 to -15 V)
Space = logic 0 (+3 V to +15 V)

1-1-2) Signal array and explanations according to interface connector pin

<Signal Array and Functions>

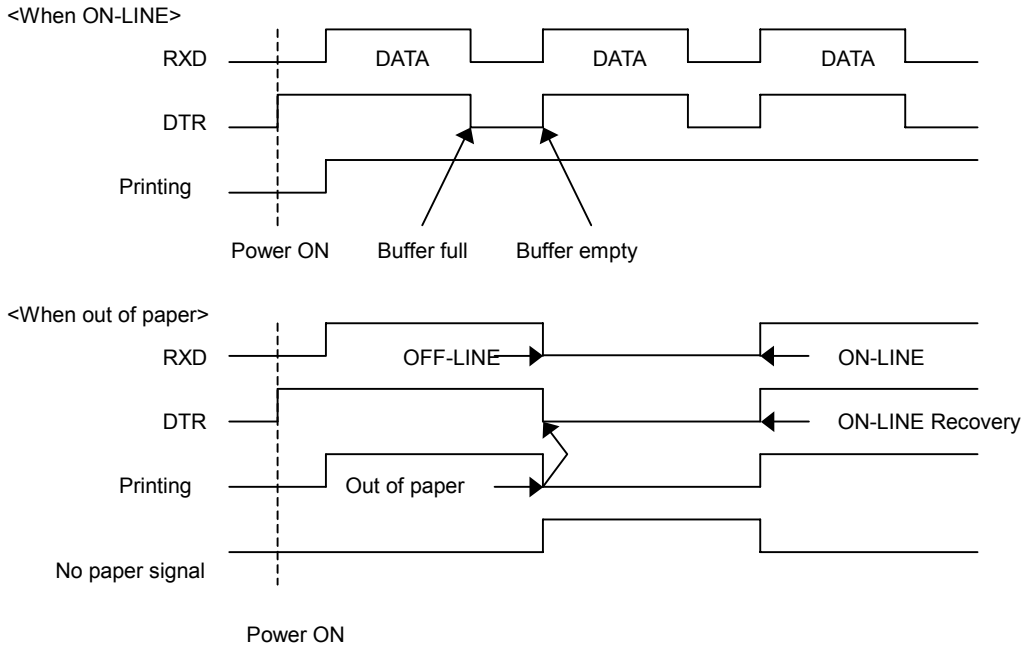
Pin No.	Signal Name	Signal Direction	Remarks
1	FG	-	Frame ground
2	TXD	OUT	Transmission data
3	RXD	IN	Reception data
4	RTS	OUT	Same as DTR
5	N.C	-	Not used
6	DSR	IN	Not used
7	SG	-	Signal ground
8-19	N.C	-	Not used
20	DTR	OUT	Data terminal ready signal (SPACE: printer is ready to receive.) 1) When in DTR mode: When printer is ready to receive data: SPACE 2) When in XON/XOFF mode: Always SPACE except in the following conditions. 1. Until communication is possible after a reset. 2. When test printing
21-24	N.C		Signal ground
25	/INIT	IN	Signal ground

1-1-3) Communication protocol

1) General description of operations in the DTR mode

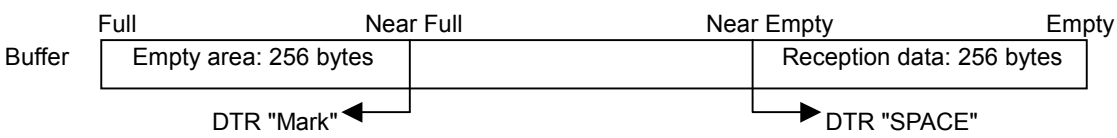
This mode abides by the DIP switch settings. (Ex-factory settings)

This mode performs communication while handshaking with the DTR signals. In the operations to receive printer data, this mode controls the DTR signals by confirming the BUSY signal. A SPACE indicates that the printer is ready to receive data; conversely, a “mark” indicates that the printer cannot receive data.



If there is no printer error after turning ON the power, the DTR signal line is set to a SPACE. When the host computer confirms that the DTR signal line is a SPACE, it sends the data text to the RXD signal line. The printer sets the DTR signal line to a “Mark” after the empty area of the data buffer reaches a maximum of 256 bytes. When the host computer confirms that the DTR signal line is a Mark, it stops the transmission of data text to the printer buffer, but at this point as well, the printer is still capable of receiving data, up to the amount of empty space in the data buffer. If the host computer ignores the DTR signal and transmits data, all data exceeding the amount of space in the data buffer is simply discarded. The printer sets the DTR signal line to SPACE again when the amount of empty space in the data buffer increased because of the printing and the data in the buffer is a maximum of 256 bytes.

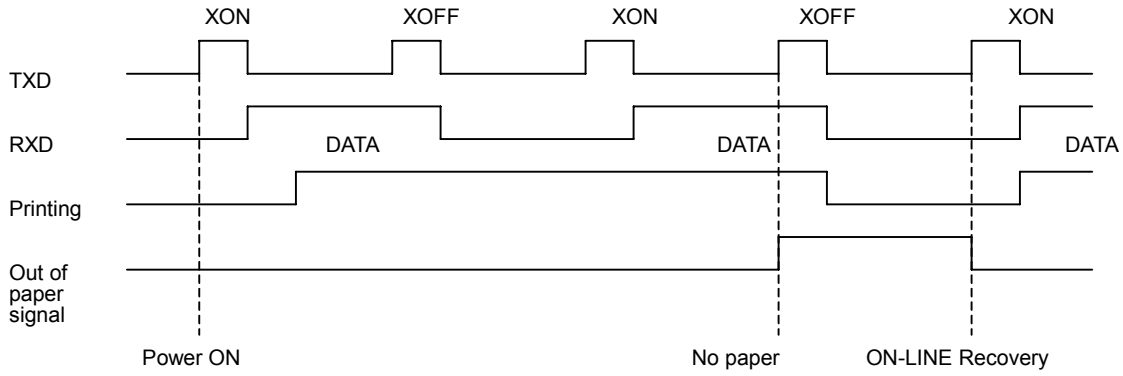
2) Buffer full/Buffer full cancel in the DTR mode



DTR is set to mark at the point the empty area is a maximum of 256 bytes.
DTR is set to SPACE when the data in the buffer is a minimum of 256 bytes.

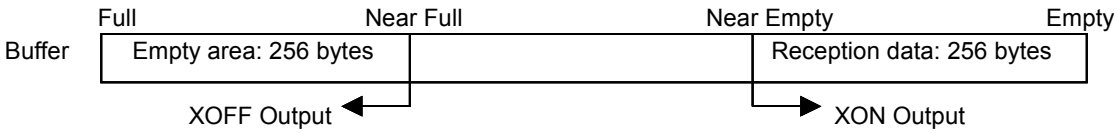
3) General description of operations in the XON/XOFF mode

This mode is set when DIPSW #1 to #3 are turned OFF. This mode notifies the host of the XON (DC1) data when the printer can receive data and the XOFF (DC3) data when the printer cannot receive data, using the TXD signals. This functions so that XON outputs only 1 byte when the printer shifts from OFFLINE (printer busy) to ONLINE (printer ready) and; XOFF outputs 1 byte when the printer shifts from ONLINE (printer ready) to OFFLINE (printer busy) .



If there is no error after turning the power ON, XON (control code name: DC1; Hexadecimal name: 11H) is output by the TXD signal line. After the host computer receives the XON, it sends the data text to the RXD signal line. XOFF (CD3; 13H) is output when the empty space in the data buffer is a maximum of 256 bytes. The host computer stops sending data text when it receives the XOFF, however, the printer is capable of receiving data at that time for the amount of empty space in the data buffer. Data exceeding the amount of empty space is discarded. As the empty space in the data buffer increases through printing, XON is output when the data in the buffer is a maximum of 256 bytes.

4) Buffer full/Buffer full cancel in the XON/XOFF mode



Printer Setting Conditions	Explanation of Operations
Memory switch B-4 = 0	XOFF outputs only 1 byte when the empty area is a maximum of 256 bytes. XON outputs 1 byte when the data in the buffer is a maximum of 256 bytes.
Memory switch B-4 = 1	XOFF output for every 1 byte of data received, when the empty area is a maximum of 256 bytes. XON output when the data in the buffer is a maximum of 256 bytes.

1-2) Parallel Interfaces (Amphenol 36 pins)

1-2-1) Specifications (Conforming to IEEE1284)

Rating: Conforms to IEEE 1284
Mode: Compatibility Mode/Nibble Mode/Byte Mode
Data transfer speed: 1000 to 6000 CPS
Synch method: According to externally supplied strobe pulse
Handshake: According to ACK and BUSY signals
Logic level: Compatible to TTL

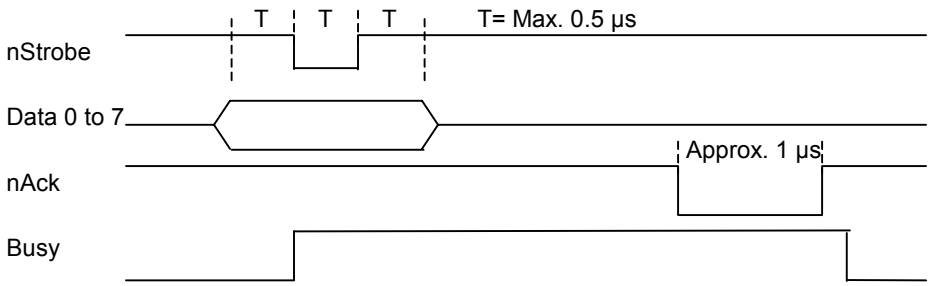
1-2-2) Signal array and explanations according to interface connector pin

<Signal Array and Functions>

Pin No.	Compatibility Mode Signal Name	Nibble Mode Signal Name	Byte Mode Signal Name
1	nStrobe	HostClk	HostClk
2 to 9	Data0 to 7	Data0 to 7	Data0 to 7
10	nAck	PtrClk	PtrClk
11	Busy	PtrBusy/Data3,7	PtrBusy
12	PError	AckDataReq/Data2,6	AckDataReq
13	Select	Xflag/Data1,5	Xflag
14	N/C	HostBusy	HostBusy
15	N/C	-	-
16	Signal GND	Signal GND	Signal GND
17	Frame GND	Frame GND	Frame GND
18	+5V	+5V	+5V
19 to 30	Twisted Pair Return	Twisted Pair Return	Twisted Pair Return
31	nInit	nInit	nInit
32	nFault	nDataAvail/Data0,4	nDataAvail
33	External GND	-	-
34	N/C	-	-
35	N/C	-	-
36	nSelectIn	1284Active	1284Active

1-2-3) Signal output timing

1) Compatibility mode



2) Nibble Mode/Byte Mode
Conforms to IEEE 1284 standard

1-2-4) Status specification

See Appendix 2 for details.

1-3) USB interface

Refer to the “USB Interface Specifications” documentation for details.

1-4) Ethernet interface

Refer to the “Ethernet Interface Specifications” documentation for details.

2. COMMAND FUNCTION LIST

• Standard Commands

Class	Commands	Name
Font style and character set	ESC GS t	Specify code page
	ESC GS =	Write blank code page data
	ESC R	Specify international character set
	ESC /	Specify/cancel slash zero
	ESC SP	Set ANK right space
	ESC M	Specify ANK 12 dot pitch
	ESC P	Specify ANK 5 dot pitch
	ESC :	Specify ANK 16 dot pitch
	ESC g	Specify ANK 14 dot pitch
Character expansion settings	ESC i	Set/cancel the double wide/high printing
	ESC W	Set/cancel the double wide printing
	ESC h	Set/cancel the double high printing
	SO	Set double wide printing
	DC4	Cancel double wide printing
	ESC SO	Set printing magnified double character height
	ESC DC4	Cancel printing magnified character height
Print modes	ESC E	Select emphasized printing
	ESC F	Cancel emphasized printing
	ESC -	Select/cancels underling mode
	ESC _	Select/cancels upperline mode
	ESC 4	Select white/black inverted printing
	ESC 5	Cancel white/black inverted printing
	SI	Select upside-down printing
	DC2	Cancel upside-down printing
Line spacing	LF	Line feed
	CR	Carriage return (same as line feed)
	ESC a	Feed paper n lines
	ESC z	Select line feed amount
	ESC 0	Specify line spacing to 3 mm
	ESC J	n/4 mm line feed
	ESC I	n/8 mm line feed

Class	Commands	Name
Page control commands	FF	Form feed
	ESC C	Set page length to n lines
	ESC C 0	Set page length in 24 mm units
	VT	Feed paper to vertical tab position
	ESC B	Set vertical tab position
	ESC N	Set bottom margin to n lines
	ESC O	Cancel bottom margin
Horizontal direction position	ESC l	Set left margin
	ESC Q	Set right margin
	HT	Move print position to horizontal tab position
	ESC D	Set/cancel horizontal tab position
	ESC GS A	Move absolute position
	ESC GS R	Move relative position
	ESC GS a	Specify position alignment
Download	ESC &	Register/delete 12 x 24 dot font download characters
	ESC %	Set/cancel download characters
Bit image graphics	ESC K	Standard density bit image
	ESC L	High density bit image
	ESC k	Fine bit image
	ESC X	Fine bit image
Logos	ESC FS q	Register logo data
	ESC FS p	Print logo data
Bar code	ESC b	Print bar code
Cutter control	ESC d	Paper cutter instruction
External device Drive	ESC BEL	Set pulse width for external device drive
	BEL	External device 1 drive instruction
	FS	External device 1 drive instruction
	SUB	External device 2 drive instruction
	EM	External device 2 drive instruction
Status	ESC RS a	Set status transmission conditions
	ESC ACK SOH	Real-time printer status (ASB Status)
	ENQ	Real-time printer status (1)
	EOT	Real-time printer status (2)
	ESC RS E	Clear ETB counter, ETB status

Class	Commands	Name
Chinese characters	ESC p	Set to JIS Chinese character mode
	ESC q	Cancel JIS Chinese character mode
	ESC $	Set/cancel JIS Chinese character mode
	ESC s	Set two byte Chinese characters left/right spaces
	ESC t	Set 1 byte Chinese characters left/right spaces
	ESC r	Register Chinese download characters
	ESC u n	Specify expanded Chinese characters (Command compatible with dot printers)
	ESC x n	Specify expanded Chinese characters (Command compatible with dot printers)
	ESC w n	Specify expanded Chinese characters (Command compatible with dot printers)
Others	CAN	Cancel print data and initialize commands
	ESC @	Command initialization
	ESC GS #	Set memory switch
	ESC ?	Reset printer

(*) Chinese character commands

- Chinese character control commands are ignored on printers not installed with Chinese character fonts (those intended for overseas).
- All Chinese character control commands are ignored if the specification for the location of use is specified as SBCS (single byte countries) by the memory switch.

• Raster related commands

Class	Commands	Name
Raster commands	ESC * r R	Initialize raster mode
	ESC * r A	Enter raster mode
	ESC * r B	Quit raster mode
	ESC * r C	Clear raster data
	ESC * r D	Drive drawer
	ESC * r E	Set EOT mode
	ESC * r F	Set FF mode
	ESC * r P	Set page length
	ESC * r Q	Set print quality
	ESC * r m l	Set left margin
	ESC * r m r	Set right margin
	ESC * r T	Set top margin
	ESC * r K	Set print color
	b n1 n2 d1...dk	Transfer raster data (auto line feed)
	k n1 n2 d1...dk	Transfer raster data
	ESC FF NUL	Execute form feed mode
	ESC EOT NULL	Execute EOT mode

• Black mark related commands

Class	Commands	Name
Black mark Related Commands	ESC d	Paper cut instruction
	FF	Form feed
	ESC C	Set page length to n lines
	ESC C 0	Set page length in 24 mm units
	VT	Feed paper to vertical tab position
	ESC B	Set vertical tab position
	ESC N	Set bottom margin to n lines
	ESC O	Cancel bottom margin

• USB I/F related commands

Class	Commands	Name
USB I/F	ESC # # W	Register/initialize USB serial number

• 2 color printing related commands

Class	Commands	Name
2 color printing Related Commands	ESC RS c	Specify printing color in 2 color printing mode
	ESC RS C	Select/cancel 2 color printing mode
	ESC 4	Specify white/black inversion and printing color red
	ESC 5	Cancel white/black inversion and specify printing color black
	ESC RS d	Set print density
	ESC RS r	Set printing speed
	ESC FS q	Register logo
	ESC FS p	Print logo

•Presenter related commands

Class	Commands	Name
Presenter related commands	ESC SYN 0	Execute presenter paper recovery
	ESC SYN 1	Set presenter automatic recovery function and recovery time
	ESC SYN 2	Set presenter operation mode
	ESC SYN 3	Acquire presenter paper counter
	ESC SYN 4	Initialize presenter paper counter

3. COMMAND DETAILS

3-1) Explanation of Terms

• Reception buffer
The buffer for storing data (reception data) received from the host, as it is called the reception buffer. Reception data is temporarily stored in the reception buffer, then processed sequentially.

• Line buffer
The buffer for storing image data for printing is called the line buffer.

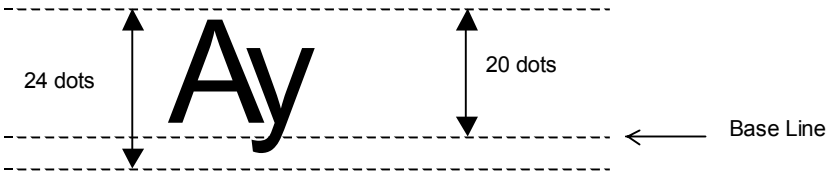
• Line buffer full
The state in which the buffer has no more space available is called line buffer full. When the buffer is full in standard mode, data in the line buffer is printed and a line feed is performed when new print data is processed. This is the same as a Line Feed. When the line buffer is full in the page mode, the printer move the print position to the head of the next line then starts with the new print data.

• Top of line
The top of line is a state that satisfies the following conditions.
- There is currently no print data in the line buffer.
- The position is not specified with the horizontal direction position command.

• Printable region
This is the maximum printable area with the printer's specifications.

• Print region
This is the printing area specified by a command. (Print region ≤ printable region)

• ANK character base line



3-2) Exception processing

1) Undefined codes
Codes from <00>H to <1F>H are targeted. When codes not defined as commands in this region are received, they are discarded.

(Ex.) If processing the data string of <30>H<31>H<03>H<32>H<0A>H<33>H, the printer will discard <03>H as an undefined code.

2) Undefined commands
When data continuing the codes of ESC, FS, GS, DLE are codes not defined as commands, ESC, FS,GS and subsequent codes are discarded.

(Ex.) If processing the data string of <30>H<1B>H<22>H<31>H<32>H, the printer will read and discard <1B>H<22>H as an undefined command.

3) Settings outside of the defined area
Processing values outside of the defined area in commands accompanying arguments, those commands are ignored and the preset values are unchanged. The processing of commands is terminated at the point values outside of the defined region are processed in arguments having a plurality of commands. Data after that is processed as normal data.

(Ex.) If processing the data string of <1B>H<52>H<15>H, the printer will discard the data string of <1B>H<52>H<15>H because although <1B>H<52>H is defined as a commands (ESC R) , the argument <15>H is outside of the definition. Therefore, the international character set that is already set experiences no change.

3-3) Standard Command Details

3-3-1) Font style and character set

ESC GS t n

[Name] Select code page

[Code]

ASCII	ESC	GS	t	n
Hex.	1B	1D	74	n
Decimal	27	29	116	n

[Defined Region] 0≤n≤21
32≤n≤34
64≤n≤79

[Initial Value] Memory switch setting
When installed with Japanese language characters and DBCS setting: Fixed at n=2
When installed with Chinese language characters and DBCS setting: Fixed at n=0

[Function] Specifies code page
When installed with Japanese and Chinese language characters and DBCS setting, this command is ignored.

n	Code Page
0	Normal*
1	CodePage437 (USA,Std. Europe)
2	Katakana
3	CodePage437 (USA,Std. Europe)
4	Codepage 858 (Multilingual)
5	Codepage 852 (Latin-2)
6	Codepage 860 (Portuguese)
7	Codepage 861 (Icelandic)
8	Codepage 863 (Canadian French)
9	Codepage 865 (Nordic)
10	Codepage 866 (Cyrillic Russian)
11	Codepage 855 (Cyrillic Bulgarian)
12	Codepage 857 (Turkey)
13	Codepage 862 (Israel (Hebrew))
14	Codepage 864 (Arabic)
15	Codepage 737 (Greek)
16	Codepage 851 (Greek)
17	Codepage 869 (Greek)
18	Codepage 928 (Greek)
19	Codepage 772 (Lithuanian)
20	Codepage 774 (Lithuanian)
21	Codepage 874 (Thai)

n	Code Page
32	Codepage 1252 (Windows Latin-1)
33	Codepage 1250 (Windows Latin-2)
34	Codepage 1251 (Windows Cyrillic)
64	Codepage 3840 (IBM-Russian)
65	Codepage 3841 (Gost)
66	Codepage 3843 (Polish)
67	Codepage 3844 (CS2)
68	Codepage 3845 (Hungarian)
69	Codepgae 3846 (Turkish)
70	Codepage 3847 (Brazil-ABNT)
71	Codepage 3848 (Brazil-ABICOMP)
72	Codepage 1001 (Arabic)
73	Codepage 2001 (Lithuanian-KBL)
74	Codepage 3001 (Estonian-1)
75	Codepage 3002 (Estonian-2)
76	Codepage 3011 (Latvian-1)
77	Codepage 3012 (Latvian-2)
78	Codepage 3021 (Bulgarian)
79	Codepage 3041 (Maltese)
255	User Setting（Blank Code Page）

ESC GS = n1 n2 da1 da2...dak db1 db2...dbk

[Name] Write blank code page data

[Code]

ASCII	ESC	GS	=	n1	n2	da1	da2	. .	dak	db1	db2	. .	dbk
Hex.	1B	1D	3D	n1	n2	da1	da2	. .	dak	db1	db2	. .	dbk
Decimal	27	29	61	n1	n2	da1	da2	. .	dak	db1	db2	. .	dbk

[Defined Area] n1= 0
n2 = 48
1≤（n1 + n2 x 256）
0≤da≤255 (Font-A data)
db = 0 (STAR mode is not installed with Font-B.)
k =（n1 + n2 x 256）

[Initial Value] - - -

[Function] A blank code page indicates a character code table where character codes from 80h to FFh are all blank.
A blank code page can be selected using the ESC GS t n command n = 255.
The printer is reset when writing with this command is completed.

Font-A Data Format Vertical 24 dots x Horizontal 12 dots]

	MSB							LSB							LSB			
Da1	•	•	•	•	•	•	•	•	Da2	•	•	•	•	○	○	○	○
Da3	•	•	•	•	•	•	•	•	Da4	•	•	•	•	○	○	○	○
Da5	•	•	•	•	•	•	•	•	Da6	•	•	•	•	○	○	○	○
Da7	•	•	•	•	•	•	•	•	Da8	•	•	•	•	○	○	○	○
Da9	•	•	•	•	•	•	•	•	Da10	•	•	•	•	○	○	○	○
Da11	•	•	•	•	•	•	•	•	Da12	•	•	•	•	○	○	○	○
Da13	•	•	•	•	•	•	•	•	Da14	•	•	•	•	○	○	○	○
Da15	•	•	•	•	•	•	•	•	Da16	•	•	•	•	○	○	○	○
Da17	•	•	•	•	•	•	•	•	Da18	•	•	•	•	○	○	○	○
Da19	•	•	•	•	•	•	•	•	Da20	•	•	•	•	○	○	○	○
Da21	•	•	•	•	•	•	•	•	Da22	•	•	•	•	○	○	○	○
Da23	•	•	•	•	•	•	•	•	Da24	•	•	•	•	○	○	○	○
Da25	•	•	•	•	•	•	•	•	Da26	•	•	•	•	○	○	○	○
Da27	•	•	•	•	•	•	•	•	Da28	•	•	•	•	○	○	○	○
Da29	•	•	•	•	•	•	•	•	Da30	•	•	•	•	○	○	○	○
Da31	•	•	•	•	•	•	•	•	Da32	•	•	•	•	○	○	○	○
Da33	•	•	•	•	•	•	•	•	Da34	•	•	•	•	○	○	○	○
Da35	•	•	•	•	•	•	•	•	Da36	•	•	•	•	○	○	○	○
Da37	•	•	•	•	•	•	•	•	Da38	•	•	•	•	○	○	○	○
Da39	•	•	•	•	•	•	•	•	Da40	•	•	•	•	○	○	○	○
Da41	•	•	•	•	•	•	•	•	Da42	•	•	•	•	○	○	○	○
Da43	•	•	•	•	•	•	•	•	Da44	•	•	•	•	○	○	○	○
Da45	•	•	•	•	•	•	•	•	Da46	•	•	•	•	○	○	○	○
Da47	•	•	•	•	•	•	•	•	Da48	•	•	•	•	○	○	○	○

• = Data region/○=Zero data

<Note>
For USB or Ethernet I/F, it is necessary to always turn the printer OFF, then ON after executing a printer reset with this command. If this is condition is not met, printer operations are not guaranteed.

ESC R n

[Name] Specify international character set

[Code]

ASCII	ESC	R	n
Hex.	1B	52	n
Decimal	27	82	n

[Defined Area] 0≤n≤14
n = 64
48≤n≤57（"0"≤n≤"9"）
65≤n≤69（"A"≤n≤"E"）

[Initial Value] Memory switch setting

[Function] Specifies international characters

n	International Characters
0, 48	USA
1, 49	France
2, 50	Germany
3, 51	UK
4, 52	Denmark
5, 53	Sweden
6, 54	Italy
7, 55	Spain
8, 56	Japan
9, 57	Norway
10, 65	Denmark II
11, 66	Spain II
12, 67	Latin America
13, 68	Korea
14, 69	Ireland
64	Legal

ESC / n

[Name] Specify/cancel slash zero

[Code]

ASCII	ESC	/	n
Hex.	1B	2F	n
Decimal	27	47	n

[Defined Area] n = 0, 1, 48, 49

[Initial Value] Memory switch setting

[Function] Specifies and cancels slash zeros.

n	International Characters
0, 48	Cancels slash zero
1, 49	Specifies slash zero

ESC SP n

[Name] Set ANK right space

[Code]

ASCII	ESC	SP	n
Hex.	1B	20	n
Decimal	27	32	n

[Defined Area] 0≤n≤15
48≤n≤57（"0"≤n≤"9"）
65≤n≤70（"A"≤n≤"F"）

[Initial Value] Memory switch setting

[Function] Specifies the right space for ANK 12 x 24 dot fonts in n dots.
Character spacing can be specified also with the following commands.

- Specify 12 dot pitch (ESC M)
- Specify 14 dot pitch (ESC g)
- Specify 15 dot pitch (ESC P)
- Specify 16 dot pitch (ESC :)

ESC M

[Name] Specify 12 dot pitch
[Code] ASCII ESC M
Hex. 1B 4D
Decimal 27 77

[Defined Area] - - -
[Initial Value] Memory switch setting
[Function] Specifies rights space for the ANK 12 x 24 dot fonts to 0 dots.

ESC P

[Name] Specify 15 dot pitch
[Code] ASCII ESC P
Hex. 1B 50
Decimal 27 80

[Defined Area] - - -
[Initial Value] Memory switch setting
[Function] Specifies rights space for the ANK 12 x 24 dot fonts to 3 dots.

ESC :

[Name] Specify 16 dot pitch
[Code] ASCII ESC :
Hex. 1B 3A
Decimal 27 58

[Defined Area] - - -
[Initial Value] Memory switch setting
[Function] Specifies rights space for the ANK 12 x 24 dot fonts to 4 dots.

ESC g

[Name] Specify 14 dot pitch

[Code]

ASCII	ESC	g
Hex.	1B	67
Decimal	27	103

[Defined Area] - - -

[Initial Value] Memory switch setting

[Function] Specifies rights space for the ANK 12 x 24 dot fonts to 2 dots.

Specification A

This command is enabled only when the memory switch setting is set for DBCS (2 byte countries). It is ignored when the memory switch setting is set for SBCS (1 byte countries).

Specification B

This command is enabled for both when the memory switch setting is set for either DBCS (2 byte countries) or SBCS (1 byte countries).

Supplement:

Specification Type A and Specification Type B differ per model.

See the COMMAND LIST BY MODEL in Chapter 6. SPECIAL APPENDIX for your model.

3-3-2) Character Expansion Settings

ESC i n1 n2

[Name] Set/cancel the double wide/high

[Code]	ASCII	ESC	i	n1	n2
	Hex.	1B	69	n1	n2
	Decimal	27	105	n1	n2

[Defined Area] 0≤n1≤5
48≤n1≤53（"0"≤n1≤"5"）
0≤n2≤5
48≤n2≤53（"0"≤n2≤"5"）

[Initial Value] n1 = 0 (Double high cancelled)
n2 = 0 (Double wide cancelled)

[Function] Specifies/cancels double high/wide for ANK characters and Chinese characters.
This command is ignored if either N1 or N2 is outside of the defined area.

n1	Expanded high
0, 48	Cancels expanded high
1, 49	Specifies 2x high expansion
2, 50	Specifies 3x high expansion
3, 51	Specifies 4x high expansion
4, 52	Specifies 5x high expansion
5, 53	Specifies 6x high expansion

n2	Expanded wide
0, 48	Cancels expanded wide
1, 49	Specifies 2x wide expansion
2, 50	Specifies 3x wide expansion
3, 51	Specifies 4x wide expansion
4, 52	Specifies 5x wide expansion
5, 53	Specifies 6x wide expansion

ESC W n

[Name] Specify/cancel expanded wide

[Code]

ASCII	ESC	W	n
Hex.	1B	57	n
Decimal	27	87	n

[Defined Area] 0≤n≤5
48≤n≤53 (”0”≤n≤”5”)

[Initial Value] n = 0 (Double wide cancelled)

[Function] Specifies/cancels double wide for ANK characters and Chinese characters.

n	Expanded wide
0, 48	Cancels expanded wide
1, 49	Specifies 2x wide expansion
2, 50	Specifies 3x wide expansion
3, 51	Specifies 4x wide expansion
4, 52	Specifies 5x wide expansion
5, 53	Specifies 6x wide expansion

ESC h n

[Name] Specify/cancel expanded high

[Code]

ASCII	ESC	h	n
Hex.	1B	68	n
Decimal	27	104	n

[Defined Area] 0≤n≤5
48≤n≤53 (”0”≤n≤”5”)

[Initial Value] n = 0 (Double high cancelled)

[Function] Specifies/cancels double high for ANK characters and Chinese characters.

n	Expanded high
0, 48	Cancels expanded high
1, 49	Specifies 2x expansion
2, 50	Specifies 3x expansion
3, 51	Specifies 4x expansion
4, 52	Specifies 5x expansion
5, 53	Specifies 6x expansion

SO

[Name] Set double wide
[Code] ASCII SO
Hex. 0E
Decimal 14

[Defined Area] - - -
[Initial Value] Cancels 2x wide expansion
[Function] Specifies double wide for ANK characters and Chinese characters.
This command is equivalent to ESC W n (n = 1).

DC4

[Name] Cancel expanded wide
[Code] ASCII DC4
Hex. 14
Decimal 20

[Defined Area] - - -
[Initial Value] - - -
[Function] Cancels expanded wide if the following commands specify expanded wide.
• Double wide specifying command (SO)
• Set/cancel double wide (ESC W)
• Set/cancel double wide/high (ESC i)
This command is equivalent to ESC W n (n = 0).

ESC SO

[Name] Set double high

[Code]

ASCII	ESC	SO
Hex.	1B	0E
Decimal	27	14

[Defined Area] - - -

[Initial Value] Double high expansion cancelled.

[Function] Specifies double high for ANK characters and Chinese characters.
This command is equivalent to ESC h n (n = 1).

ESC DC4

[Name] Cancel expanded high

[Code]

ASCII	ESC	DC4
Hex.	1B	14
Decimal	27	20

[Defined Area] - - -

[Initial Value] - - -

[Function] Cancels expanded high if the following commands specify expanded high.
• Double high specifying command (ESC SO)
• Set/cancel the double high (ESC h)
• Set/cancel double wide/high (ESC i)
This command is equivalent to ESC h n (n = 0).

3-3-3) Print mode

ESC E

[Name] Select emphasized printing
[Code] ASCII ESC E
Hex. 1B 45
Decimal 27 69

[Defined Area] - - -
[Initial Value] Emphasized printing selected
[Function] Specifies emphasized printing for ANK characters.
IBM block ignores emphasized printing.

ESC F

[Name] Cancel emphasized printing
[Code] ASCII ESC F
Hex. 1B 46
Decimal 27 70

[Defined Area] - - -
[Initial Value] Emphasized printing cancelled.
[Function] Cancels emphasized printing for ANK characters.

ESC – n

[Name] Select/cancels underling mode

[Code]

ASCII	ESC	-	n
Hex.	1B	2D	n
Decimal	27	45	n

[Defined Area] n = 0, 1, 48, 49

[Initial Value] n = 0 (Underline cancelled)

[Function] Specifies underlining (2 dots).
Underlines are composed of 2 dot lines.
Underlines are not applied to horizontal tabs and to specified horizontal direction positions.
Underlines are expanded if the character expansion is specified. (When double high expansion is used, underlines are composed of 4 dots.)
Underlines are enabled for white/black inversion.
This command is enabled for ANK characters and Chinese characters.
IBM block ignores underlines.

n	Underline
0, 48	Cancels underline
1, 49	Specifies underline

ESC _ n

[Name] Specify/cancel upperline

[Code]

ASCII	ESC	_	n
Hex.	1B	5F	n
Decimal	27	95	n

[Defined Area] n = 0, 1, 48, 49

[Initial Value] n = 0 (Upperline cancelled)

[Function] Specifies upperlining (2 dots).
Upperlines are composed of 2 dot lines.
Upperlines are not applied to horizontal tabs and to specified horizontal direction positions.
Upperlines are expanded if the character expansion is specified. (When double high expansion is used, upperlines are composed of 4 dots.)
Upperlines are enabled for white/black inversion.
This command is enabled for ANK characters and Chinese characters.
IBM block ignores upperlines.

n	Upperline
0, 48	Cancels upperline
1, 49	Specifies upperline

ESC 4

[Name] Select white/black inverted printing

[Code]

ASCII	ESC	4
Hex.	1B	34
Decimal	27	52

[Defined Area] - - -

[Initial Value] White/black inversion cancelled

[Function] Specifies white/black inversion for ANK characters and Chinese characters.
IBM block ignores white/black inversion.

ESC 5

[Name] Cancel white/black inversion

[Code]

ASCII	ESC	5
Hex.	1B	35
Decimal	27	53

[Defined Area] - - -

[Initial Value] White/black inversion cancelled

[Function] Cancels white/black inversion for ANK characters and Chinese characters.

SI

[Name] Select upside-down printing
[Code] ASCII SI
Hex. 0F
Decimal 15

[Defined Area] - - -
[Initial Value] Upside-down cancelled
[Function] Specifies upside-down printing
This command is enabled only when at the top of the line.
Upside down and right-side up characters cannot both exist in the same line.
This command is enabled for following.
• ANK characters
• Chinese characters
• Bit images
• Logos
• Bar codes

DC2

[Name] Cancel upside-down printing
[Code] ASCII DC2
Hex. 12
Decimal 18

[Defined Area] - - -
[Initial Value] Upside-down printing cancelled
[Function] Cancels upside-down printing
This command is enabled only when at the top of the line.

3-3-4) Line spacing

LF

[Name] Line feed
[Code] ASCII LF
Hex. 0A
Decimal 10

[Defined Area] - - -
[Initial Value] - - -
[Function] Feeds the currently specified amount of paper.
If print data exists in the line buffer, it prints that data.
The initial value for the amount of paper is set according to the memory switch settings.

CR

[Name] Carriage return (line feed)
[Code] ASCII CR
Hex. 0D
Decimal 13

[Defined Area] - - -
[Initial Value] - - -
[Function] When the CR code is enabled, the CR code functions in the same way as the LF code.
If the CR code is disabled, it ignores 1 byte.
Enabling and disabling the CR code is done using the memory switch settings.

ESC a n

[Name] Feed paper n lines
[Code] ASCII ESC a n
Hex. 1B 61 n
Decimal 27 97 n

[Defined Area] 1≤n≤127
[Initial Value] - - -
[Function] Executes a paper feed for (the currently specified line feed amount x n). If print data exists in the line buffer, it prints that data.
The initial value for the amount of paper is set according to the memory switch settings.

ESC z n

[Name] Select line feed amount

[Code]

ASCII	ESC	z	n
Hex.	1B	7A	n
Decimal	27	122	n

[Defined Area] n = 1, 49

[Initial Value] Memory switch setting

[Function] Specifies the line feed amount.

n	Line feed amount
1, 49	Specifies 4 mm line feed amount

ESC 0

[Name] Specify line spacing to 3 mm

[Code]

ASCII	ESC	0
Hex.	1B	30
Decimal	27	48

[Defined Area] - - -

[Initial Value] Memory switch setting

[Function] Specifies the line feed amount to 3 mm.

ESC J n

[Name] n/4 mm line feed

[Code]				
	ASCII	ESC	J	n
	Hex.	1B	4A	n
	Decimal	27	74	n

[Defined Area] 1≤n≤255
[Initial Value] - - -
[Function] Executes a n/4mm paper feed.
If print data exists in the line buffer, it prints that data.
Using this command will intermittently feed paper, therefore, it is normally recommended that this command not be used.

ESC I n

[Name] n/8mm line feed

[Code]				
	ASCII	ESC	I	n
	Hex.	1B	49	n
	Decimal	27	73	n

[Defined Area] 1≤n≤255
[Initial Value] - - -
[Function] Executes a n/8mm paper feed.
If print data exists in the line buffer, it prints that data.
Using this command will intermittently feed paper, therefore, it is normally recommended that this command not be used.

3-3-5) Page control commands

FF

[Name] Form feed
[Code] ASCII FF
Hex. 0C
Decimal 12

[Defined Area] - - -
[Initial Value] - - -
[Function] Executes a form feed.
If the current position is at the top of the page, it form feeds to the top of the next page.
If there is data existing in the line buffer when executing a form feed, it prints that data, then executes the form feed.
However, by printing data remaining in the buffer, and moving to the top of the next page, a form feed is considered to have been executed, so form feed is not performed.

ESC C n

[Name] Set page length to n lines
[Code] ASCII ESC C n
Hex. 1B 43 n
Decimal 27 67 n

[Defined Area] 1≤n≤127
[Initial Value] (Form feed amount initial value x 42)
[Function] The position whereat this command is processed is considered the top of the page and sets the page length to (current form feed amount x n).
This command cancels the bottom margin setting when setting page length.
The page length set using this command is unaffected by changing the form feed amount later.
Moving to the top of the page is performed using the following commands.

- Form feed command (FF): Executes a form feed.
- Cutter command (ESC d n): Sets cutter position at top of page.
- Raster command (ESC * r B): Sets top of page when quitting raster mode.
- Error cancel operations: Sets position when quitting error cancellation operations at top of page.

ESC C 0 n

[Name] Set page length to n x 24 mm units

[Code]

ASCII	ESC	C	0	n
Hex.	1B	43	00	n
Decimal	27	67	0	n

[Defined Area] 1≤n≤22

[Initial Value] (Form feed amount initial value x 42)

[Function] The position whereat this command is processed is considered the top of the page and sets the page length to (n x 24 mm).

This command cancels the bottom margin setting when setting page length.

The page length set using this command is unaffected by changing the form feed amount later.

Moving to the top of the page is performed using the following commands.

- Form feed command (FF): Executes a form feed.
- Cutter command (ESC d n): Sets cutter position at top of page.
- Raster command (ESC * r B): Sets top of page when quitting raster mode.
- Error cancel operations: Sets position when quitting error cancellation operations at top of page.

VT

[Name] Feed paper to vertical tab position

[Code]

	ASCII	VT
	Hex.	0B
	Decimal	11

[Defined Area] - - -

[Initial Value] - - -

[Function] Feeds paper to the next vertical tab position.
This command is ignored if there are no tabs set.
If a vertical tab is set, and the current position is the same as the vertical tab position, or if it is below that position, it feeds paper to the top of the next page.
If data exists in the line buffer when feeing paper to the vertical tab position, it executes the paper feed to the vertical tab position after printing that data. However, if moved to the vertical tab position by printing data remaining in the buffer, the move to the vertical tab position is considered to have been executed, so a move to the next vertical tab position is not performed.
There is no initial value for the vertical tab.

ESC B n1 n2...nk NUL

[Name] Set vertical tab position

[Code]	ASCII	ESC	B	n1	n2	. .	nk	NUL
	Hex.	1B	42	n1	n2	. .	nk	00
	Decimal	27	66	n1	n2	. .	nk	0

[Defined Area] 1≤n≤255
0≤k≤16

[Initial Value] - - -

[Function] Sets the vertical tab to the (current form feed amount x n) position.
All other vertical tabs set before setting the vertical tab using this command are cancelled
A maximum of 16 vertical tabs can be set. However, the tab position must satisfy the condition of 1≤n1≤n2... ≤nk. When receiving such illegal codes, tabs up to the illegal code are set, but those after the illegal code are discarded up to the NUL code so illegal code tab are not set.
The vertical tab set using this command is unaffected by changing the form feed amount later.
Vertical tabs set using the ESC B NUL command are cleared.
There is no initial value for the vertical tab.

ESC B NUL

[Name] Clear vertical tab position

[Code]	ASCII	ESC	B	NUL
	Hex.	1B	42	00
	Decimal	27	66	0

[Defined Area] - - -

[Initial Value] - - -

[Function] Clears the currently set vertical tab.

3-3-6) Horizontal direction printing position

ESC l n

[Name] Set left margin

[Code]				
	ASCII	ESC	l	n
	Hex.	1B	6C	n
	Decimal	27	108	n

[Defined Area] 0≤n≤255

[Initial Value] n = 0

[Function] Uses the left edge as a standard to set the left margin as (current ANK character pitch x n).
Character pitch includes the space between characters and expansion settings are enabled.
The left margin set using this command is unaffected by changing the character pitch.
This command is ignored if settings are for a printing region less than 36 mm.

Specification A
Setting this command partway will take affect from the next line.
Specification B
This command is enabled only when at the top of the line.

Supplement:
Specification Type A and Specification Type B differ per model.
See the COMMAND LIST BY MODEL in Chapter 6. SPECIAL APPENDIX for your model.

ESC Q n

[Name] Set right margin

[Code]

ASCII	ESC	Q	n
Hex.	1B	51	n
Decimal	27	81	n

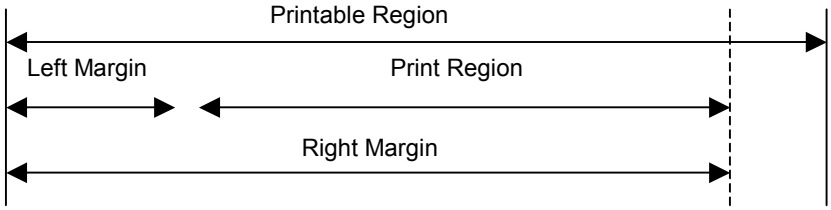
[Defined Area] 0≤n≤255

[Initial Value] - - -

[Function] Uses the left edge as a standard to set the print region as (current ANK character pitch x n).
Character pitch includes the space between characters and expansion settings are enabled.
The right margin set using this command is unaffected by changing the character pitch.
This command is ignored if settings are for a printing region less than 36 mm.

Specification A
Setting this command partway will take affect from the next line.
Specification B
This command is enabled only when at the top of the line.

Supplement:
Specification Type A and Specification Type B differ per model.
See the COMMAND LIST BY MODEL in Chapter 6. SPECIAL APPENDIX for your model.



HT

[Name] Move horizontal tab

[Code]

ASCII	HT
Hex.	09
Decimal	9

[Defined Area] - - -

[Initial Value] - - -

[Function] Move print position to next horizontal tab position.
This command is ignored with under the following conditions.
• When there is no horizontal tab set.
• When the current position is the same as the furthest right horizontal tab position or to the right of it.
There is no initial value for the horizontal tab.

ESC D n1 n2...nk NUL

[Name] Set horizontal tab

[Code]

ASCII	ESC	D	n1	n2	. .	nk	NUL
Hex.	1B	44	n1	n2	. .	nk	00
Decimal	27	68	n1	n2	. .	nk	0

[Defined Area] 1≤n≤255
0≤k≤16

[Initial Value] - - -

[Function] Uses the left edge as a standard to set the horizontal tab to the position of (current ANK character pitch x n).
The horizontal tab reference point is the right edge of the paper, regardless of the left margin.
ANK character pitch includes the right space and expansion settings are enabled.
All other horizontal tabs set before setting the horizontal tab using this command are cancelled
A maximum of 16 horizontal tabs can be set.
However, the tab position must satisfy the following conditions.
If the following conditions are not met, data up to the NUL code is discarded.
Normal tabs that meet the conditions below are set and tabs after errors occur are not set.
• 1≤n1≤n2... ≤nk
• nk ≤ Printable region
The horizontal tab set using this command is unaffected by changing the character pitch.
Horizontal tabs set using the ESC D NUL command are cleared.
There is no initial value for the horizontal tab.

ESC D NUL

[Name] Clear horizontal tab

[Code]

ASCII	ESC	D	NUL
Hex.	1B	44	00
Decimal	27	68	0

[Defined Area] - - -

[Initial Value] - - -

[Function] Clears the currently set horizontal tab.

ESC GS A n1 n2

[Name] Move absolute position

[Code]						
	ASCII	ESC	GS	A	n1	n2
	Hex.	1B	1D	41	n1	n2
	Decimal	27	29	65	n1	n2

[Defined Area] 0≤n1≤255
0≤n2≤255

[Initial Value] - - -

[Function] Moves the printing position from the left margin to the (n1 + n2 x 256) position.
This command is ignored if the print region is exceeded.

ESC GS R n1 n2

[Name] Move relative position

[Code]						
	ASCII	ESC	GS	R	n1	n2
	Hex.	1B	1D	52	n1	n2
	Decimal	27	29	82	n1	n2

[Defined Area] 0≤n1≤255
0≤n2≤255

[Initial Value] - - -

[Function] Moves the printing position from the current position to the (n1 + n2 x 256) position.
This command is ignored if the print region is exceeded.
When (n1 + n2 x 256) ≥ 32768, it moves {65536 – (n1 + n2 x 256)} dots in the left direction.
When (n1 + n2 x 256) < 32768, it moves (n1 + n2 x 256)} dots in the right direction.

ESC GS a n

[Name] Specify position alignment

[Code]

ASCII	ESC	GS	a	n
Hex.	1B	1D	61	n
Decimal	27	29	97	n

[Defined Area] 0≤n≤2
48≤n≤50（"0"≤n≤"2"）

[Initial Value] n = 0

[Function] Specifies the alignment position in the printing region that has been set.

n	Position alignment
0, 48	Left alignment
1, 49	Center alignment
2, 50	Right alignment

3-3-7) Download

ESC & c1 c2 n d1...d48

[Name] Register 12 x 24 dot font download characters

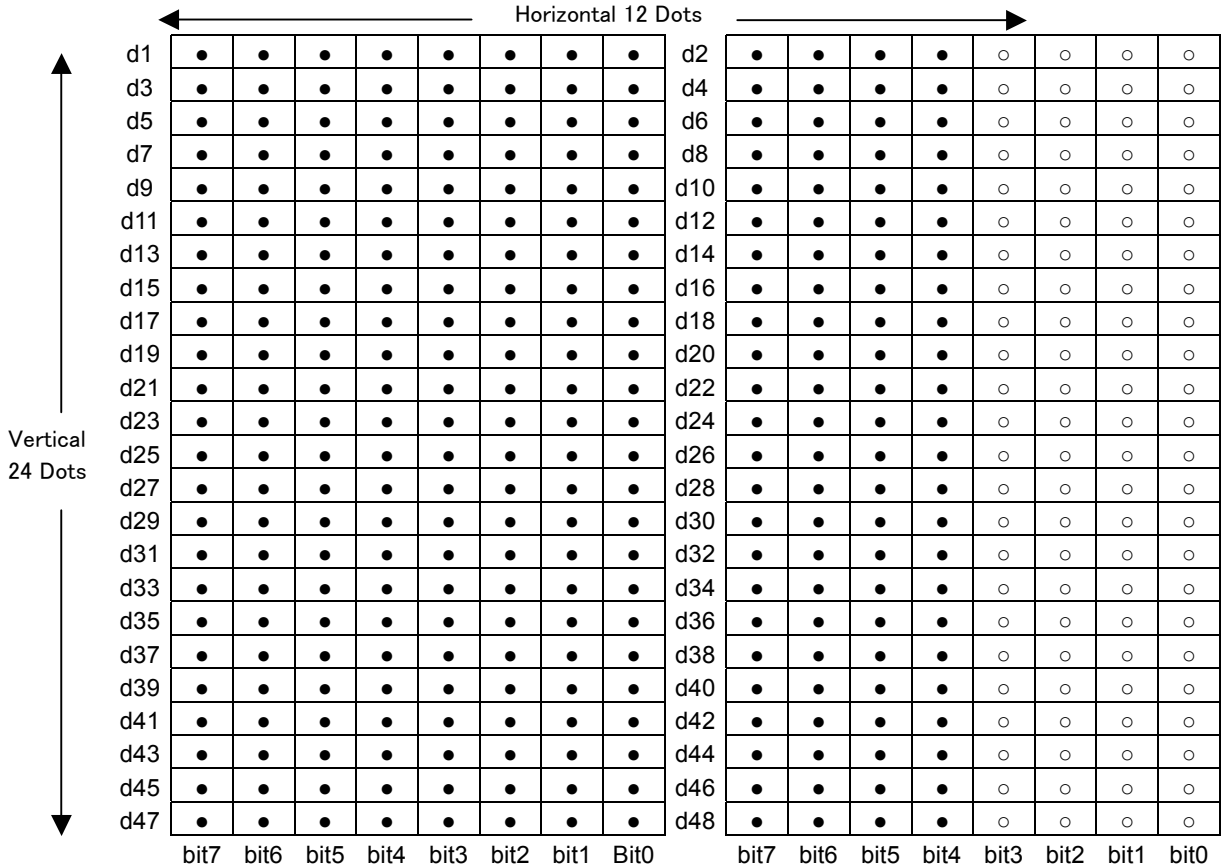
[Code]

ASCII	ESC	&	c1	c2	n	d1	. .	d48
Hex.	1B	26	c1	c2	n	d1	. .	d48
Decimal	27	38	c1	c2	n	d1	. .	d48

[Defined Area] c1 = 1, 49
c2 = 1, 49
32≤n≤127
0≤d≤255

[Initial Value] - - -

[Function] Registers 12 x 24 dot font download characters to the nth address.
Download characters can be registered to <20>H to <7F>H.
If one has been already registered to an address, it is overwritten.
When parameters c1 and c2 and n are outside of the defined area, subsequent data is handled as normal data.



●: Font data ○: Invalid data

ESC & c1 c2 n

[Name] Delete 12 x 24 dot font download characters

[Code]

ASCII	ESC	&	c1	c2	n
Hex.	1B	26	c1	c2	n
Decimal	27	38	c1	c2	n

[Defined Area] c1 = 1, 49
c2 = 0, 48
32≤n≤127

[Initial Value] - - -

[Function] Deletes 12 x 24 dot font download characters registered to the nth address.

ESC % n

[Name] Specifies/cancels ANK download characters

[Code]

ASCII	ESC	%	n
Hex.	1B	25	n
Decimal	27	37	n

[Defined Area] n=0, 1, 48, 49

[Initial Value] ANK download characters cancelled

[Function] Specifies/cancels ANK download characters

n	Download characters
0, 48	Cancels ANK download characters
1, 49	Specifies ANK download characters

<Print example of ANK download characters>
1. ANK download character register (ESC & c1 c2 n d1…d48)
2. Specify ANK download characters (ESC % n (n = 1))
3. Prints ANK download characters

3-3-8) Bit image graphics

ESC K n1 n2 d1...dk

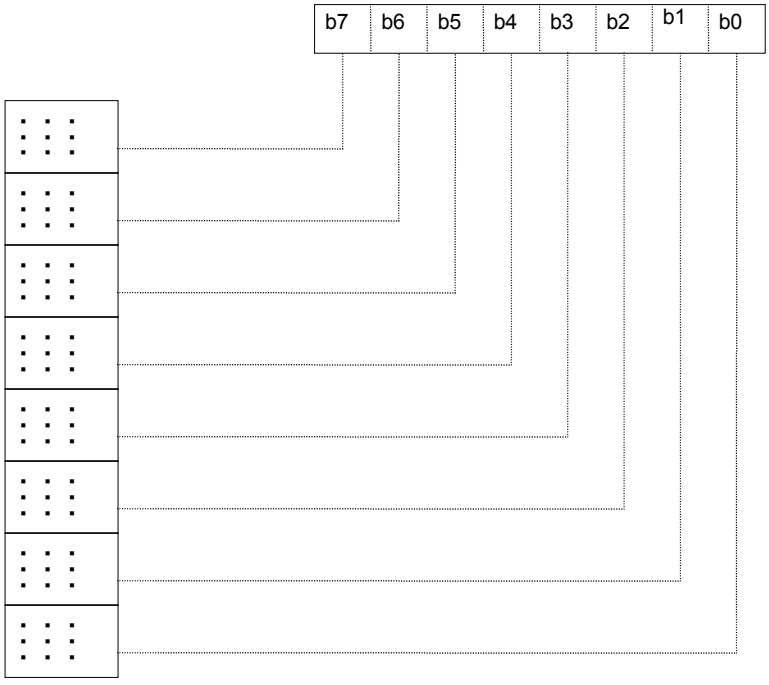
[Name] Standard density bit image

[Code]								
	ASCII	ESC	K	n1	n2	d1	. .	dk
	Hex.	1B	4B	n1	n2	d1	. .	dk
	Decimal	27	75	n1	n2	d1	. .	dk

[Defined Area] $1 \leq \{(n1 + n2 \times 256) \times 3\} \leq$ printable region
$k = (n1 + n2 \times 256)$
$0 \leq d \leq 255$

[Initial Value] - - -

[Function] Prints bit images using 3 dots wide and 3 dots high per 1 dot of input data.
The following shows the data processing in this command.
• When {(n1 + n2 x 256) x 3} exceeds the printable region, data after d1 is handled as normal data.
• When {(n1 + n2 x 256) x 3} exceeds the printable region that is currently set, only the data in the printing region is printed.
At this time, all data for the print region is discarded.
• If the current position already exceeds the print region, this command discards all data.



ESC L n1 n2 d1...dk

[Name] Standard density bit image

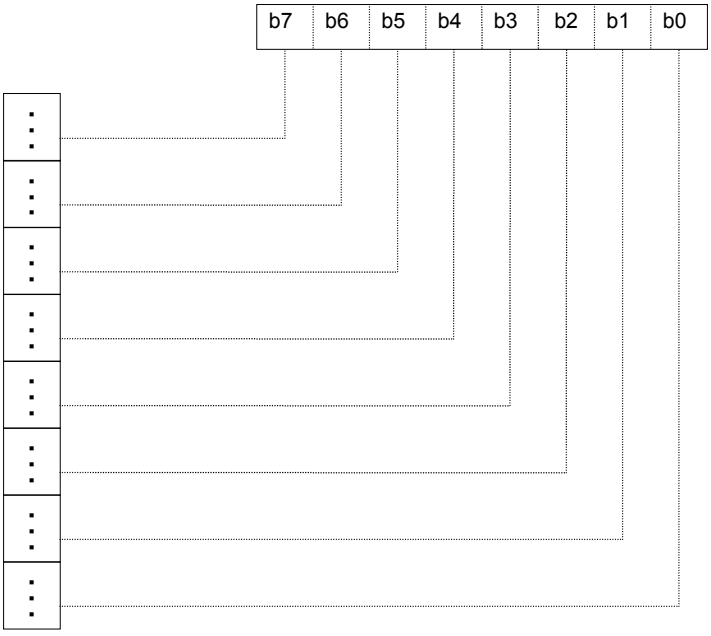
[Code]

ASCII	ESC	L	n1	n2	d1	. .	dk
Hex.	1B	4C	n1	n2	d1	. .	dk
Decimal	27	76	n1	n2	d1	. .	dk

[Defined Area] $1 \leq (n1 + n2 \times 256) \leq$ printable region
$k = (n1 + n2 \times 256)$
$0 \leq d \leq 255$

[Initial Value] - - -

[Function] Prints bit images using 1 dots wide and 3 dots high per 1 dot of input data.
The following shows the data processing in this command.
• When (n1 + n2 x 256) exceeds the printable region, data after d1 is handled as normal data.
• When (n1 + n2 x 256) exceeds the printable region that is currently set, only the data in the printing region is printed.
At this time, all data for the print region is discarded.
• If the current position already exceeds the print region, this command discards all data.



ESC k n1 n2 d1...dk

[Name] Fine density bit image

[Code]

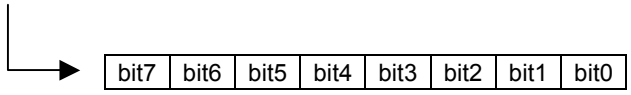
ASCII	ESC	k	n1	n2	d1	. .	dk
Hex.	1B	6B	n1	n2	d1	. .	dk
Decimal	27	107	n1	n2	d1	. .	dk

[Defined Area] n2 = 0
1 ≤ {(n1 + n2 x 256) x 8} ≤ printable region
k = {(n1 + n2 x 256) x 24}
0≤d≤255

[Initial Value] - - -

[Function] Prints bit images using 1 dots wide and 1 dots high per 1 dot of input data.
The following shows the data processing in this command.
• When {(n1 + n2 x 256) x 8} exceeds the printable region, data after d1 is handled as normal data.
• When {(n1 + n2 x 256) x 8} exceeds the printable region that is currently set, only the data in the printing region is printed.
At this time, all data for the print region is discarded.
• If the current position already exceeds the print region, this command discards all data.

d1	d2	•••••••	dn
dn+1	dn+2	•••••••	d2n
d2n+1	d2n+2	•••••••	d3n
d3n+1	d3n+2	•••••••	d4n
d4n+1	d4n+2	•••••••	d5n
d5n+1	d5n+2	•••••••	d6n
d6n+1	d6n+2	•••••••	d7n
d7n+1	d7n+2	•••••••	d8n
d8n+1	d8n+2	•••••••	d9n
d9n+1	d9n+2	•••••••	d10n
d10n+1	d10n+2	•••••••	d11n
d11n+1	d11n+2	•••••••	d12n
d12n+1	d12n+2	•••••••	d13n
d13n+1	d13n+2	•••••••	d14n
d14n+1	d14n+2	•••••••	d15n
d15n+1	d15n+2	•••••••	d16n
d16n+1	d16n+2	•••••••	d17n
d17n+1	d17n+2	•••••••	d18n
d18n+1	d18n+2	•••••••	d19n
d19n+1	d19n+2	•••••••	d20n
d20n+1	d20n+2	•••••••	d21n
d21n+1	d21n+2	•••••••	d22n
d22n+1	d22n+2	•••••••	d23n
d23n+1	d23n+2	•••••••	d24n



ESC X n1 n2 d1...dk

[Name] Fine density bit image (Compatible with 24 bit wire dots)

[Code]

ASCII	ESC	X	n1	n2	d1	. .		dk
Hex.	1B	58	n1	n2	d1	. .		dk
Decimal	27	88	n1	n2	d1	. .		dk

[Defined Area] $1 \leq (n1 + n2 \times 256) \leq$ printable region

$k = \{(n1 + n2 \times 256) \times 3\}$

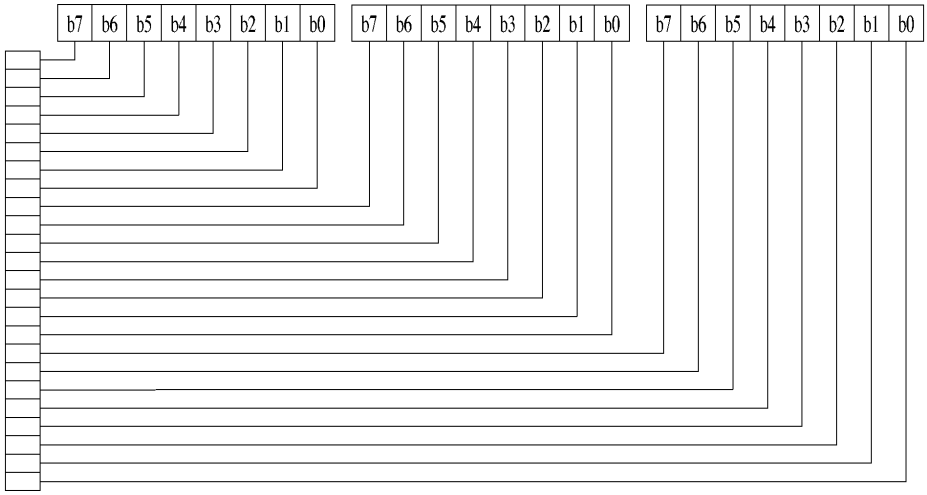
$0 \leq d \leq 255$

[Initial Value] - - -

[Function] Prints input bit images with 8 dots/mm resolution for both horizontal and vertical.

The following shows the data processing in this command.

- When {(n1 + n2 x 256) x 3} exceeds the printable region, data after d1 is handled as normal data.
- When {(n1 + n2 x 256) x 3} exceeds the printable region that is currently set, only the data in the printing region is printed.
  At this time, all data for the print region is discarded.
- If the current position already exceeds the print region, this command discards all data.



3-3-9) Logo

ESC FS q n [x11 x12 y11 y12 d1...dk]1...[xn1 xn2 yn1 yn2 d1...dk]n

[Name] Register logo

[Code]																			
	ASCII	ESC	FS	q	n	[x11	x12	y11	y12	d1	. .	dk]1	. .	[xn1	xn2	yn1	yn2	d1	. . dk]n
	Hex.	1B	1C	71	n	[x11	x12	y11	y12	d1	. .	dk]1	. .	[xn1	xn2	yn1	yn2	d1	. . dk]n
	Decimal	27	28	113	n	[x11	x12	y11	y12	d1	. .	dk]1	. .	[xn1	xn2	yn1	yn2	d1	. . dk]n

[Defined Area] 1≤n≤255
0≤xn1≤255, 0≤xn2≤3
1≤(xn1 + xn2 x 256)≤1023
0≤yn1≤255, 0≤yn2≤1
1≤(yn1 + yn2 x 256)≤288
0≤d≤255
k = {(xn1 + xn2 x 256) x (yn1 + yn2 x 256) x 8}

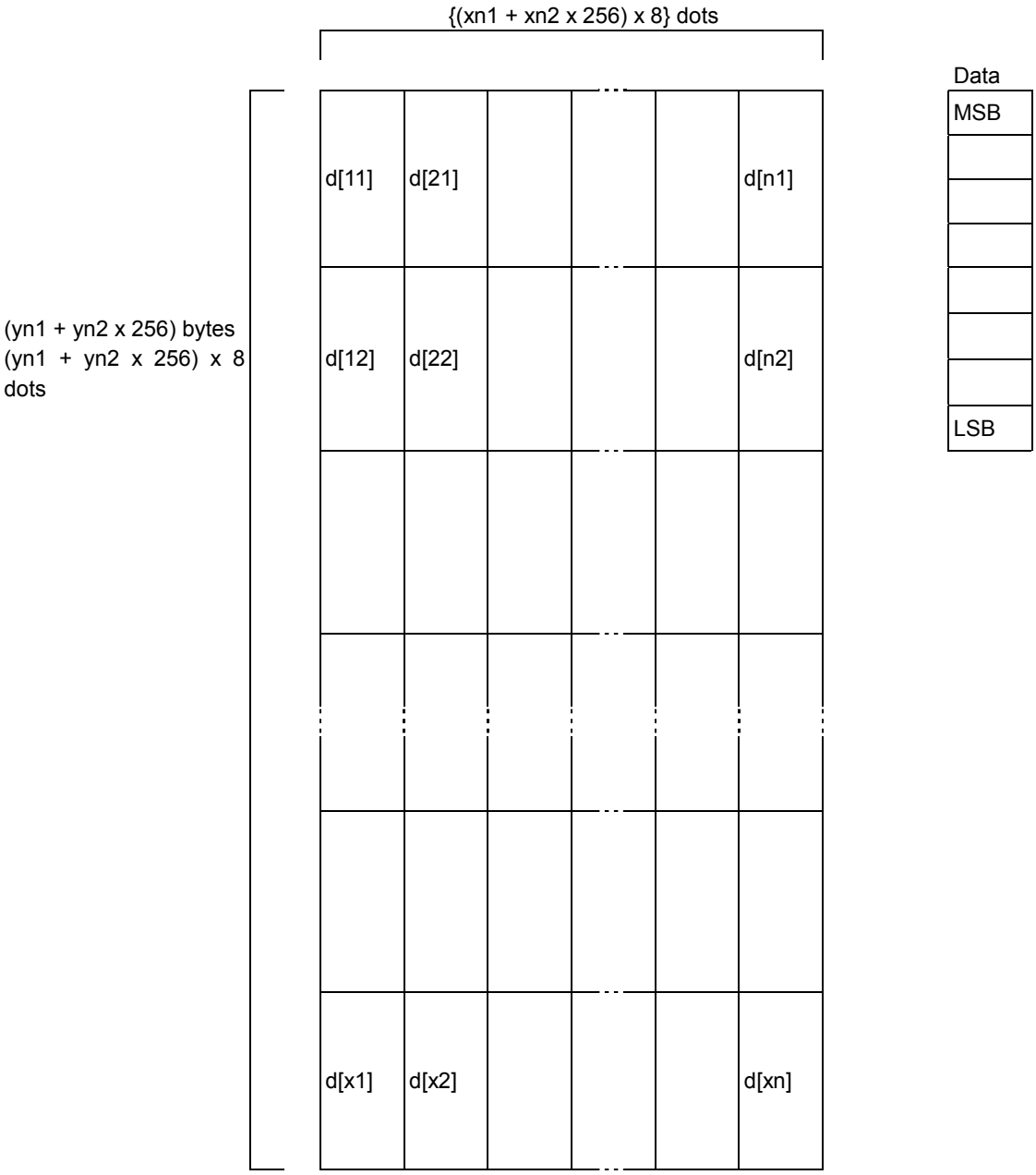
[Initial Value] - - -

[Function] Parameter details
- n: Specifies registered logo count
- xn1, xn2: Horizontal size of registered logo {(xn1 + xn2 x 256) x 8} dots
- yn1, yn2: Vertical size of registered logo {(yn1 + yn2 x 256) x 8} dots
- d: Registered logo data
- k: Logo data count

This command should be specified at the top of the line.
When the first parameter is determined to be free of error, the printer starts processing this command.
When logo register processing starts, all previously defined data is deleted.
(It is not possible to reregister a portion of a plurality of defined logo data.)
Logo registration numbers are defined in rising order from 1.
The logo definition region is approximately 256 bytes.
If the defined area specified by the parameter is not empty, or if there is an error in the parameter specification, register processing is aborted. (The pre-registered and complete data is effective.)
The printer should be initialized if logo registration is completed or register processing is aborted.
If an error occurs while performing register processing (the time from when the first parameter is OK until th printer initialization is completed after registering a logo), error processing, mechanical operation and status processing cannot be performed.
The relationships between input data and the actual print are shown on the next page.

<Note>
For USB or Ethernet I/F, it is necessary to always turn the printer OFF, then ON after executing a printer reset with this command. If this is condition is not met, printer operations are not guaranteed.

Relationships of logo and registered data
xn = xn1 + xn2 x 256, yn = yn1 + yn2 x 256



ESC FS p n m

[Name] Print logo

[Code]

ASCII	ESC	FS	p	n	m
Hex.	1B	1C	70	n	m
Decimal	27	28	112	n	m

[Defined Area] 1≤n≤255
0≤m≤3
48≤m≤51（”0”≤m≤”3”）

[Initial Value] - - -

[Function] Prints the logo of registration number n registered using the logo registration command (ESC FS q) according to the print mode m.

m	Logo print mode
0, 48	Normal mode
1, 49	Double wide mode
2, 50	Double high mode
3, 51	Double high/wide mode

If there is unprinted data in the line buffer, this command is executed after printing that data. Therefore, it is not possible to print with other data in the same line (characters, bit images, bar codes).
Form feed obeys the vertical print size of the logo.
If the logo horizontal print size exceeds the horizontal print region, the portion exceeding the area is not printed.
Logos are printed according to the following command settings.
• Left margin (ESC I n)
• Right margin (ESC Q n)
• Position alignment (ESC GS a n)
• Absolut position movement (ESC GS R n1 n2)
• Upside-down printing (SI)

3-3-10) Bar code

ESC b n1 n2 n3 n4 d1...dk RS

[Name]

[Code]	ASCII	ESC	b	n1	n2	n3	n4	d1	. .	dk	RS
	Hex.	1B	62	n1	n2	n3	n4	d1	. .	dk	1E
	Decimal	27	98	n1	n2	n3	n4	d1	. .	dk	30

[Defined Area] 0≤n1≤8, 48≤n1≤56 (”0 ≤n1≤”8”)
1≤n2≤4, 49vn2≤52 (”1”≤n2≤”4”)
1≤n4≤255
n3 (bar code mode), d (bar code data), k (bar code data count) definitions differ according to the type of bar code.

[Initial Value] - - -

[Function] Bar code printing is executed according to the following parameters.
If n1, n2, n3 and n4 are acquired and detected to be out of the defined area, data up to RS is discarded.

• n1 bar code type selection

n1	Bar code type
0, 48	UPC-E
1, 49	UPC-A
2, 50	JAN/EAN8
3, 51	JAN/EAN13
4, 52	Code39
5, 53	ITF
6, 54	Code128
7, 55	Code93
8, 56	NW-7

• n2 Under-bar character selection and added line feed selection

n2	Under-bar character selection and added line feed selection
1, 49	No added under-bar charactersExecutes line feed after printing a bar code
2, 50	Adds under-bar characters Executes line feed after printing a bar code
3, 51	No added under-bar charactersDoes not execute line feed after printing a bar code
4, 52	Adds under-bar characters Does not execute line feed after printing a bar code

• n3 bar code mode selection

n3	Bar code type		
	UPC-E, UPC-A, JAN/EAN8 JAN/EAN13, Code128, Code93	Code39, NW-7	ITF
1, 49	Minimum module 2 dots	Narrow : Wide = 2:6 dots	Narrow : Wide = 2:5 dots
2, 50	Minimum module 3 dots	Narrow : Wide = 3:9 dots	Narrow : Wide = 4:10 dots
3, 51	Minimum module 4 dots	Narrow : Wide = 4:12 dots	Narrow : Wide = 6:15 dots
4, 52	- - -	Narrow : Wide = 2:5 dots	Narrow : Wide = 2:4 dots
5, 53	- - -	Narrow : Wide = 3:8 dots	Narrow : Wide = 4:8 dots
6, 54	- - -	Narrow : Wide = 4:10 dots	Narrow : Wide = 6:12 dots
7, 55	- - -	Narrow : Wide = 2:4 dots	Narrow : Wide = 2:6 dots
8, 56	- - -	Narrow : Wide = 3:6 dots	Narrow : Wide = 3:9 dots
9, 57	- - -	Narrow : Wide = 4:8 dots	Narrow : Wide = 4:12 dots

• n4 bar code height (dot count)
Specification A
When the height of the bar code is more than the form feed amount, the form feed amount is automatically doubled.
Specification B
Form feed at (Bar code height + underbar characters)

Supplement:
Specification Type A and Specification Type B differ per model.
See the COMMAND LIST BY MODEL in Chapter 6. SPECIAL APPENDIX for your model.

• k (Bar code data count), d (Bar code data)

Bar code type	Defined area of k	Defined area of d
UPC-E	11≤k≤12	48≤d≤57（”0”≤d≤”9”）
UPC-A	11≤k≤12	48≤d≤57（”0”≤d≤”9”）
JAN/EAN8	7≤k≤8	48≤d≤57（”0”≤d≤”9”）
JAN/EAN13	12≤k≤13	48≤d≤57（”0”≤d≤”9”）
Code39	1≤k	48≤d≤57（”0”≤d≤”9”） 65≤d≤90（”A”≤d≤”Z”） 32, 36, 37, 43, 45, 46, 47（SP, ”$”, ”%”, ”+”, ”-“, ”.”, ”/”）
ITF	1≤k When an odd number: 0 is automatically applied to the top.	48≤d≤57（”0 ≤d≤”9”）
Code128	1≤k	0≤d≤127
Code93	1≤k	0≤d≤127
NW-7	1≤k	48≤d≤57（”0”≤d≤”9”） 65≤d≤68（”A”≤d≤”D”） 36, 43, 45, 46, 47, 58（”$”, ”+”, ”-“, ”.”, ”/”, ”:”） 97, 98, 99, 100（”a”, ”b”, ”c”, ”d”）

• UPC – E: k = 11 (or 12)
The 12th check digit is automatically applied, so it is specified and ignored.
The command is ignored for data that cannot be shortened.
Automatically converts data to shortened form.
• UPC – A: k = 11 (or 12)
The 12th check digit is automatically applied, so it is specified and ignored.
• JAN/EAN – 8: k = 7 (or 8)
The 8th check digit is automatically applied, so it is specified and ignored.
• JAN/EAN -13: k = 12 (or 13)
The 13th check digit cannot be automatically applied, so it is specified and ignored.
• CODE 39: k is freely set, and maximum value differs according to the mode.
Start/stop code (*) is automatically applied.
• ITF: k is freely set, and maximum value differs according to the mode.
If data is oddly numbered, a 0 is applied to the top.
• CODE 128: k is freely set, and maximum value differs according to the mode and the print character type.
The check character is automatically applied.
• CODE 93: k is freely set, and maximum value differs according to the mode and the print character type.
The check character (?) is automatically applied.
• NW7: k is freely set, and maximum value differs according to the mode and the print character type.
Start/stop codes included in the data (not automatically applied).

3-3-11) Cutter control

ESC d n

[Name] Auto-cutter

[Code]				
	ASCII	ESC	d	n
	Hex.	1B	64	n
	Decimal	27	100	n

[Defined Area] 0≤d≤3
48≤d≤51（"0"≤d≤"3"）

[Initial Value] - - -

[Function] Exectes the auto-cutter.
After auto-cutter is executed, the printer considers that to be the top of the page.

n	Auto cutter
0, 48	Full cut at the current position. Print data in line buffer is printed before a full cut. This command is ignored if the printer is not equipped with an auto-cutter.
1, 49	Partial cut at the current position. Print data in line buffer is printed before a partial cut. This command is ignored if the printer is not equipped with an auto-cutter.
2, 50	Paper is fed to cutting position, then a full cut. Print data in line buffer is printed before the operation described above. This command is ignored if the printer is not equipped with an auto-cutter.
3, 51	Paper is fed to cutting position, then a partial cut. Print data in line buffer is printed before the operation described above. This command is ignored if the printer is not equipped with an auto-cutter.

(*) The auto-cutter function operates in the following ways on models that only have a full cut or a partial cut.

- Models that perform only a full cut. Executes a full cut when there are instructions calling for a partial cut.
- Models that perform only a partial cut. Executes a partial cut when there are for instructions calling for a full cut.

(*) When connected with a presenter, executes a full cut when instructed for a partial cut.

3-3-12 External device drive

ESC BEL n1 n2

[Name] Set external drive device 1 pulse width

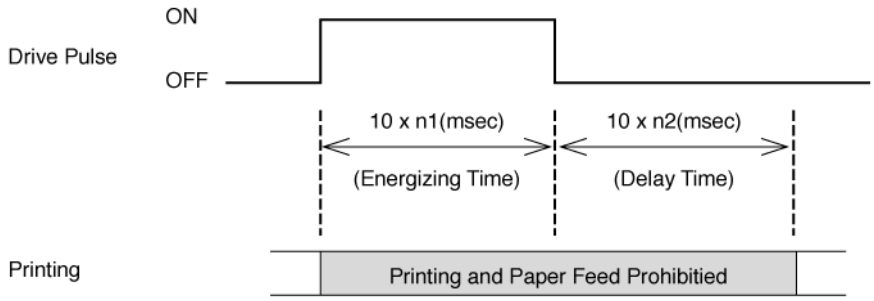
[Code]

ASCII	ESC	BEL	n1	n2
Hex.	1B	07	n1	n2
Decimal	27	7	n1	n2

[Defined Area] 1≤n1≤127
1≤n2≤127

[Initial Value] n1 = 20 (Energizing time: 200 msec)
n2 = 20 (Delay time: 200 msec)

[Function] Sets the energizing and delay times for drive of the external device.
• Energizing time = 10 x n1 (ms)
• Delay time = 10 x n2 (ms)



BEL

[Name] External device 1 drive instruction
[Code] ASCII BEL
Hex. 07
Decimal 7

[Defined Area] - - -
[Initial Value] - - -
[Function] Executes the external device drive conditions set according to the command to set the external drive device pulse width (ESC BEL n1 n2).
As with other commands, it temporarily stores data in the data buffer, then executes in the order received.
External device 1 and external device 2 cannot be executed simultaneously.

FS

[Name] External device 1 drive instruction
[Code] ASCII FS
Hex. 1C
Decimal 28

[Defined Area] - - -
[Initial Value] - - -
[Function] Executes the external device drive conditions set according to the command to set the external drive device pulse width (ESC BEL n1 n2).
As with other commands, it temporarily stores data in the data buffer, then executes in the order received.
External device 1 and external device 2 cannot be executed simultaneously.

SUB

[Name] External device 2 drive instruction
[Code] ASCII SUB
Hex. 1A
Decimal 26

[Defined Area] - - -
[Initial Value] - - -

[Function] Drives external device 2.
The energizing time and delay time for the external device 2 are fixed at 200 ms each.
As with other commands, it temporarily stores data in the data buffer, then executes in the order received.
External device 1 and external device 2 cannot be executed simultaneously.

EM

[Name] External device 2 drive instruction
[Code] ASCII EM
Hex. 19
Decimal 25

[Defined Area] - - -
[Initial Value] - - -
[Function] Drives external device 2.
The energizing time and delay time for the external device 2 are fixed at 200 ms each.
As with other commands, it temporarily stores data in the data buffer, then executes in the order received.
External device 1 and external device 2 cannot be executed simultaneously.

3-3-13) Print settings

There are no commands for TSP600/700/800 and TUP900.

3-3-14) Status

ESC RS a n

[Name] Set status transmission conditions

[Code]

ASCII	ESC	RS	a	n
Hex.	1B	1E	61	n
Decimal	27	30	97	n

[Defined Area] 0≤n≤3
48≤n≤51（"0"≤n≤"51"）

[Initial Value] Set by DIP switches.

[Function] Sets the status transmission conditions.
See Appendix 2 for details regarding ASB status.
This command is ignored when using a USB or Ethernet I/F.
Settings of this command are unaffected by the ESC @ command.

n	Status transmission conditions
0, 48	ASB invalid
1, 49	ASB valid

ESC ACK SOH

[Name] Real-time printer status (ASB status)

[Code]

ASCII	ESC	ACK	SOH
Hex.	1B	06	01
Decimal	27	6	1

[Defined Area] - - -

[Initial Value] - - -

[Function] Sends ASB status information to the host.
This command is ignored when using a USB or Ethernet I/F.
This command is not used when ASB is valid.
See Appendix 2, Automatic Status for details regarding ASB status.

ENQ

[Name] Real-time printer status (1)

[Code]

ASCII	ENQ
Hex.	05
Decimal	5

[Defined Area] - - -

[Initial Value] - - -

[Function] Sends 1 byte of the following the printer status
This command is ignored when using a USB or Ethernet I/F.
This command is not used when ASB is valid.
See Appendix 2, ENQ Command Status for details regarding status.

EOT

[Name] Real-time printer status (2)

[Code]

ASCII	EOT
Hex.	04
Decimal	4

[Defined Area] - - -

[Initial Value] - - -

[Function] Sends 1 byte of the following the printer status
This command is ignored when using a USB or Ethernet I/F.
This command is not used when ASB is valid.
See Appendix 2, EOT Command Status for details regarding status.

3-3-15) Chinese characters

ESC p

[Name] Specify JIS Chinese character mode
[Code] ASCII ESC p
Hex. 1B 70
Decimal 27 112

[Defined Area] - - -
[Initial Value] JIS Chinese character mode cancelled
[Function] Specifies JIS Chinese character mode
When in JIS Chinese character mode, character codes are all handled as 2 byte Chinese characters (First byte: upper code; second byte: lower code).
This command is ignored for models not equipped with Japanese and Chinese characters and when the specification for the location of use is specified as SBCS (single byte countries) by the memory switch.

ESC q

[Name] Cancel JIS Chinese character mode
[Code] ASCII ESC q
Hex. 1B 71
Decimal 27 113

[Defined Area] - - -
[Initial Value] JIS Chinese character mode cancelled
[Function] Cancel JIS Chinese character mode

ESC $ n

[Name] Specify/cancel Shift JIS Chinese character mode

[Code]				
	ASCII	ESC	$	N
	Hex.	1B	24	N
	Decimal	27	36	N

[Defined Area] - - -

[Initial Value] Memory switch setting

[Function] Specifies and cancels the shift JIS Chinese character mode.
When in shift JIS Chinese character mode, character codes are all handled as 2 byte Chinese characters (First byte: upper code; second byte: lower code).
This command is ignored for models not equipped with Japanese and Chinese characters and when the specification for the location of use is specified as SBCS (single byte countries) by the memory switch.

n	Shift JIS Chinese character mode
0, 48	Cancels shift JIS Chinese character mode
1, 49	Specifies shift JIS Chinese character mode

ESC s n1 n2

[Name] Set 2 byte Chinese character left/right spaces

[Code]					
	ASCII	ESC	s	n1	n2
	Hex.	1B	73	n1	n2
	Decimal	27	115	n1	n2

[Defined Area] 0≤n1≤7
48≤n1≤55（”0”≤n1≤”7”）
0≤n2≤15
48≤n2≤57（”0”≤n2≤”9”）
65≤n2≤70（”A”≤n2≤”F”）

[Initial Value] Memory switch setting

[Function] Adds n1 dot left space and n2 dot right space to Chinese characters.
This command is ignored for models not equipped with Chinese fonts (for overseas) and when the specification for the location of use is specified as SBCS (single byte countries) by the memory switch.

ESC t n1 n2

[Name] Set 1 byte Chinese character left/right spaces

[Code]					
	ASCII	ESC	t	n1	n2
	Hex.	1B	74	n1	n2
	Decimal	27	116	n1	n2

[Defined Area] 0≤n1≤7
48≤n1≤55（”0”≤n1≤”7”）
0≤n2≤15
48≤n2≤57（”0”≤n2≤”9”）
65≤n2≤70（”A”≤n2≤”F”）

[Initial Value] Memory switch setting

[Function] Adds n1 dot left space and n2 dot right space to 1 byte characters.
This command is ignored for models not equipped with Chinese fonts (for overseas) and when the specification for the location of use is specified as SBCS (single byte countries) by the memory switch.

ESC r c1 c2 d1...dk

[Name] Register Chinese download characters

[Code]

ASCII	ESC	r	c1	c2	d1	. .	dk
Hex.	1B	72	c1	c2	d1	. .	dk
Decimal	27	114	c1	c2	d1	. .	dk

[Defined Area] 0≤d≤255
k=72
c1 and c2 differ according to specifications and code type (see table below).

[Initial Value] All spaces

[Function] Registers Chinese download characters to c1 and c2 addresses.
Those already registered to these addresses are overwritten. If c1 and c2 are outside of the defined are or the printer is model not equipped with Chinese fonts (for overseas) and when the specification for the location of use is specified as SBCS (single byte countries) by the memory switch, the printer discards up to d1 and dk.
This command exists in models that have the specifications of A and B below. (See the "Special Appendix, Command Table per Model" for details.)

Specification A

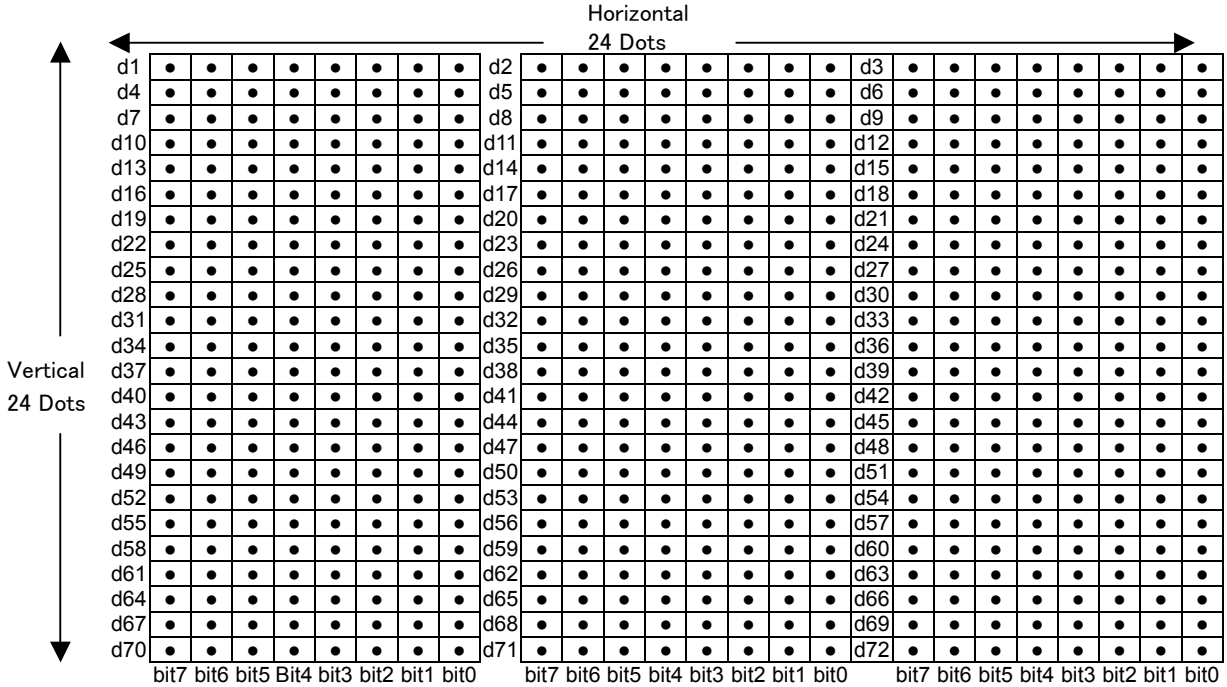
Specification	c1	c2	Registration count
Japanese char./JIS type	c1=77h	30h≤c2≤4Fh	32 characters

Specification B

Specification	c1	c2	Registration count
Japanese char./JIS type	c1=77h	21h≤c2≤7Eh	94 characters
Japanese char./Shift JIS type	c1=ECh	40h≤c2≤7Eh 80h≤c2≤9Eh	94 characters
Chinese characters	c1=FEh	A1h≤c2≤FEh	94 characters

(*) The registration region is the same for Japanese characters in JIS or shift JIS.

Supplement:
Specification Type A and Specification Type B differ per model.
See the COMMAND LIST BY MODEL in Chapter 6. SPECIAL APPENDIX for your model.



●: Font data/○: Invalid data

3-3-16) Others

CAN

[Name] Cancel print data and initialize commands
[Code] ASCII CAN
Hex. 18
Decimal 24

[Defined Area] - - -
[Initial Value] - - -
[Function] When the reception buffer and line buffer are cleared, the set commands are initialized.
Immediately executed not when taking out from the reception buffer, but when received from the host.
DIPSW re-readin is not performed.
The following shows the specifications that are not initialized by this command.

- Set print density
- Set print speed
- Set 2 color print mode
- Print color in 2 color print mode
- External device drive condition

ESC @

[Name] Command initialization

[Code]

ASCII	ESC	@
Hex.	1B	40
Decimal	27	64

[Defined Area] - - -

[Initial Value] - - -

[Function] Initializes each command after printing data in the line buffer.
However, printers with memory switch settings are initialized to the memory switch settings.
DIPSW re-readin is not performed.

- ANK characters, Chinese character adornment, expansion
- Chinese character mode
- ANK right space
- Chinese character left/right spaces
- Character pitch
- International characters
- Code page
- Set slash zero
- Set specify/cancel external character (external register character data is retained)
- Page length
- Current position (move to top of page, top of line)
- Horizontal tab/Vertical tab
- Line feed amount
- Set upside-down, position alignment
- Left/right margins

The following shows the specifications that are not initialized by this command.

- Set print density
- Set print speed
- Set 2 color print mode
- Print color in 2 color print mode
- External device drive condition

ESC GS # m N n1 n2 n3 n4 LF NUL

[Name] Set memory switch

[Code]

ASCII	ESC	GS	#	m	N	n1	n2	n3	n4	LF	NUL
Hex.	1B	1D	23	m	N	n1	n2	n3	n4	0A	00
Decimal	27	29	35	m	N	n1	n2	n3	n4	10	0

[Defined Area] m = 87, 84, 44, 43, 45, 64 （ m = “W”, “T”, “,”, “+”, “-”, “@” ）
48≤n1≤57 （“0”≤n1≤ “9”）, 65≤n1≤70 （“A” ≤n1≤ “F”）, 97≤n1≤102 （“a”≤n1≤ “f”）
48≤n2≤57 （“0”≤n2≤ “9”）, 65≤n2≤70 （“A”≤n2≤ “F”）, 97≤n2≤102 （“a”≤n2≤ “f”）
48≤n3≤57 （“0”≤n3≤ “9”）, 65≤n3≤70 （“A”≤n3≤ “F”）, 97≤n3≤102 （“a”≤n3≤ “f”）
48≤n4≤57 （“0”≤n4≤ “9”）, 65≤n4≤70 （“A”≤n4≤ “F”）, 97≤n4≤102 （“a”≤n4≤ “f”）

Specification A
48≤N≤57 （“0”≤N≤ “9”）, 65≤N≤70 （“A”≤N≤ “F”）, 97≤N≤102 （“a”≤N≤ “f”）
Specification B
48≤N≤57 （“0”≤N≤ “9”）, 65≤N≤70 （“A”≤N□ “F”）, 97≤N≤102 （“a”≤N≤ “f”）
N = 85 (U) User defined area

Supplement:
Specification Type A and Specification Type B differ per model.
See the COMMAND LIST BY MODEL in Chapter 6. SPECIAL APPENDIX for your model.

[Initial Value] - - -

[Function] Sends command to write after defining memory switch using the definition command specified by the following classes.
Memory switch information defined by the command to write is written to the volatile memory.
When writing to the volatile memory by the command to write, the printer executes a reset.
This command exists in models that have the specifications of A and B indicated in the above defined areas.
Models having specifications B can register any 16 bit data by specifying N = 85 (U). (See the “Special Appendix, Command Table per Model” for details per model.)

Functions	Class	m	N	n1 n2 n3 n4
Definition data write and reset	Write	W	Fixed at 0	Fixed at 0000
Definition data write and reset and self print	Write	T	Fixed at 0	Fixed at 0000
Data definition (data specification)	Definition	“, ”	N	n1 n2 n3 n4
Data definition (specify bit and set)	Definition	“+”	N	n1 n2 n3 n4
Data definition (specy bit and clear)	Definition	“-”	N	n1 n2 n3 n4
Definition data (all data initialized)	Definition	“@”	Fixed at 0	Fixed at 0000

- m : Mode selection
- N : Memory switch number to specify
- n1 n2 n3 n4 : Specify data m = (,) Specify data
  m = (+) Bit number to set
  m = (-) Bit number to clear

<Note>
For USB or Ethernet I/F, it is necessary to always turn the printer OFF, then ON after executing a printer reset with this command. If this is condition is not met, printer operations are not guaranteed.

ESC ? LF NUL

[Name] Reset printer (execute self print)

[Code]

ASCII	ESC	?	LF	NUL
Hex.	1B	3F	0A	00
Decimal	27	63	10	0

[Defined Area] - - -

[Initial Value] - - -

[Function] Hardware resets the printer and executes on self print.
After sending this command, the next data is not sent until the printer is online (in a state wherein it can receive data).
When resetting the printer, the following processes are performed.

I/F	Mode	Process
Parallel	- - -	BUSY output
RS-232C	DTR mode	DTR mark outpu
	Xon/Xoff mode	Xoff output

3-4) Raster Graphics Command Details

Raster graphics are command types and incidental specifications that enable high speed and high quality printing of graphics.
The following shows the characteristics and specifications for raster graphics.

- Defines the raster mode command as the STAR line mode extension set.
  Basically no restrictions set in use of conventional STAR line mode.
  STAR Page Mode cannot be used.
- Handles high speed data transmission
  When using IEEE 1284, data transmission rate of 80 to 100 kbytes ensured.
- Handles IEEE 1284 and USB (RS-232C not applicable)
- Handles both fixed length/variable length mode
- Print speed selectable
- Post printing cut operation selectable
- All settings possible by Raster commands.
  Most settings are possible without DIPSW/memory switch settings.
- Supports printer driver handling raster mode

The following shows the raster command details.
Note that if not specifically noted, the following commands are effective only in rastr mode and the commands are ignored (4 bytes ignored) when other than the raster mode. The raster image buffer in the command details described below indicate the raster dedicated image buffer, the length thereof (vertical direction dot count) differing between models.

ESC * r R

[Name] Initialize raster mode

[Code]

ASCII	ESC	*	r	R
Hex.	1B	2A	72	52
Decimal	27	42	114	82

[Defined Area] - - -

[Initial Value] - - -

[Function] Initializes raster mode.

This command is also effective when not in the raster mode.

However, initialization of the raster mode with this command is executed when entering the raster mode.

The following settings are initialized using this command.

- Raster page length setting (ESC * r P n NUL)
- Raster print quality setting (ESC * Q n NUL)
- Raster print quality setting (ESC * r K n NUL)
- Raster top margin setting (ESC * r T n NUL)
- Raster left margin setting (ESC * r m l n NUL)
- Raster right margin setting (ESC * r m r n NUL)
- Raster EOT mode setting (ESC FF EOT)
- Raster FF mode setting (ESC FF NUT)
- Raster image buffer clear

Note that when entering the raster mode, it executes the same process as initialization of the raster mode using this command.

However, because initialization is not performed when entering the raster mode only for the following settings, when initializing the following it sends this initialization command.

- Raster data print color setting (ESC * r K n NUL)

ESC * r A

[Name] Enter raster mode

[Code]

ASCII	ESC	*	r	A
Hex.	1B	2A	72	41
Decimal	27	42	114	65

[Defined Area] - - -

[Initial Value] - - -

[Function] Enters raster mode.

This command is ignored when in the raster mode.

The following shows the details regard processing of this command.

(1) Reception of this command.

(2) When using parallel I/F, IEEE 1284 reverse mode is prohibited.

(3) All data remaining in the reception buffer and image buffer is printed equivalent to the FF command.

(4) Initialize raster mode

(5) Enter raster mode

When in the raster mode, the raster mode is initialized.

The following shows the contents of the initialization.

- Raster page length setting (ESC * r P n NUL)
- Raster print quality setting (ESC * Q n NUL)
- Raster top margin setting (ESC * r T n NUL)
- Raster left margin setting (ESC * r m l n NUL)
- Raster right margin setting (ESC * r m r n NUL)
- Raster EOT mode setting (ESC FF EOT)
- Raster FF mode setting (ESC FF NUT)
- Raster image buffer clear

(*) Only raster data print color setting is not initialized when entering the raster mode.

ESC * r B

[Name] Quit raster mode

[Code]

ASCII	ESC	*	r	B
Hex.	1B	2A	72	42
Decimal	27	42	114	66

[Defined Area] - - -

[Initial Value] - - -

[Function] Quits raster mode.
When quitting the raster mode, if there is raster data remaining in the image buffer of the raster mode, it quits the raster mode after executing the raster EOT mode.
Note that with this command, IEEE 1284 reverse mode is allowed in parallel I/F and it sets the top of page with the line mode.

ESC * r C

[Name] Clear raster data

[Code]

ASCII	ESC	*	r	C
Hex.	1B	2A	72	43
Decimal	27	42	114	67

[Defined Area] - - -

[Initial Value] - - -

[Function] Clears image buffer data in the raster mode.

ESC * r D n NUL

[Name] Drawer drive

[Code]

ASCII	ESC	*	r	D	n	NUL
Hex.	1B	2A	72	44	n	00
Decimal	27	42	114	68	n	0

[Defined Area] 0≤n≤3

[Initial Value] n = 0

[Function] Drives the drawer in the raster mode.
Drawer drive conditions conform to conditions set by the line mode.
n is a decimal description (max. 255 digits) using ASCII characters.

n	Drive circuits
0	None
1	External deveice drive 1 drive
2	External deveice drive 2 drive
3	External device drive 1 drive and external device drive 2 drive

ESC * r E n NUL

[Name] Set raster EOT mode

[Code]

ASCII	ESC	*	r	E	n	NUL
Hex.	1B	2A	72	45	n	00
Decimal	27	42	114	69	n	0

[Defined Area] n = 0, 1, 2, 3, 8, 9, 12, 13, 36, 37

[Initial Value] Models handling full cut: n = 9
Models connected with a presenter: n = 37

[Function] Sets the raster EOT mode.
The EOT mode operates to execute using the raster document quit command (ESC EOT NUL).
n is a decimal description (max. 255 digits) using ASCII characters.

Specification A <EOT mode setting format>

n	FormFeed	Cut Feed	Cutter	Presenter
0	Set To Default	Set To Default	Set To Default	Set To Default
1	○	--	--	--
2	○	○	--	--
3	○	TearBar	--	--
8	○	--	Full Cut	--
9	○	○	Full Cut	--
12	○	--	Partial Cut	--
13	○	○	Partial Cut	--
36	○	--	Full Cut	Eject
37	○	○	Full Cut	Eject

Specification B <EOT mode setting format>

n	FormFeed	Cut Feed	Cutter	Presenter
0	Set To Default	Set To Default	Set To Default	Set To Default
1	○ (*1)	--	--	--
2	○ (*1)	○	--	--
3	○ (*1)	TearBar	--	--
8	○ (*1)	--	Full Cut	--
9	○ (*1)	○	Full Cut	--
12	○ (*1)	--	Partial Cut	--
13	○ (*1)	○	Partial Cut	--
36	○ (*1)	--	Full Cut	Eject
37	○ (*1)	○	Full Cut	Eject

*1) Form Feed
When the printer is a model handling BM and is set for BM to be effective, the set raster mode page length is ignored and BM detecting is performed.

Supplement:
Specification Type A and Specification Type B differ per model.
See the COMMAND LIST BY MODEL in Chapter 6. SPECIAL APPENDIX for your model.

ESC * r F n NUL

[Name] Set raster FF mode

[Code]

ASCII	ESC	*	r	F	n	NUL
Hex.	1B	2A	72	46	n	00
Decimal	27	42	114	70	n	0

[Defined Area] n = 0, 1, 2, 3, 8, 9, 12, 13, 36, 37

[Initial Value] Models handling full cut: n = 9

Models connected with a presenter: n = 37

[Function] Sets raster FF mode.

The FF mode operates to execute using the raster document quit command (ESC FF NUL).

n is a decimal description (max. 255 digits) using ASCII characters.

Specification A <FF mode setting format>

n	FormFeed	Cut Feed	Cutter	Presenter
0	Set To Default	Set To Default	Set To Default	Set To Default
1	○	--	--	--
2	○	○	--	--
3	○	TearBar	--	--
8	○	--	Full Cut	--
9	○	○	Full Cut	--
12	○	--	Partial Cut	--
13	○	○	Partial Cut	--
36	○	--	Full Cut	Eject
37	○	○	Full Cut	Eject

Specification B <FF mode setting format>

n	FormFeed	Cut Feed	Cutter	Presenter
0	Set To Default	Set To Default	Set To Default	Set To Default
1	○ (*1)	--	--	--
2	○ (*1)	○	--	--
3	○ (*1)	TearBar	--	--
8	○ (*1)	--	Full Cut	--
9	○ (*1)	○	Full Cut	--
12	○ (*1)	--	Partial Cut	--
13	○ (*1)	○	Partial Cut	--
36	○ (*1)	--	Full Cut	Eject
37	○ (*1)	○	Full Cut	Eject

*1) Form Feed

When the printer is a model handling BM and is set for BM to be effective, the set raster mode page length is ignored and BM detecting is performed.

Supplement:

Specification Type A and Specification Type B differ per model.

See the COMMAND LIST BY MODEL in Chapter 6. SPECIAL APPENDIX for your model.

ESC * r P n NUL

[Name] Set raster page length

[Code]

	ASCII	ESC	*	r	P	n	NUL
	Hex.	1B	2A	72	50	n	00
	Decimal	27	42	114	80	n	0

[Defined Area] - - -

[Initial Value] Raster image buffer length

[Function] Sets raster page length.
n is a decimal description (max. 255 digits) using ASCII characters.

n	
0	Continuous print mode (no page length setting)
1≤n	Specify page length

ESC * r Q n NUL

[Name] Set raster print quality

[Code]

	ASCII	ESC	*	r	Q	n	NUL
	Hex.	1B	2A	72	51	n	00
	Decimal	27	42	114	81	n	0

[Defined Area] 0≤n≤2

[Initial Value] n = 0

[Function] Sets raster print quality.
n is a decimal description (max. 255 digits) using ASCII characters.

n	Print quality
0	Specify high speed printing
1	Normal print quality
2	High print quality

ESC * r m l n NUL

[Name] Set raster left margin

[Code]

ASCII	ESC	*	r	m	l	n	NUL
Hex.	1B	2A	72	6D	6C	n	00
Decimal	27	42	114	109	108	n	0

[Defined Area] - - -

[Initial Value] n = 0

[Function] Sets raster left margin.
This command sets the left margin to (n x 8).
When the left margin exceeds the printable area, or if the left margin specification eliminates the print area (printable region to right margin) to the left margin specified value, this command is ignored.
n is a decimal description (max. 255 digits) using ASCII characters.

ESC * r m r n NUL

[Name] Set raster right margin

[Code]

ASCII	ESC	*	r	m	r	n	NUL
Hex.	1B	2A	72	6D	72	n	00
Decimal	27	42	114	109	114	n	0

[Defined Area] - - -

[Initial Value] n = 0

[Function] Sets raster right margin.
This command sets the right margin to (n x 8).
When the right margin exceeds the printable area, or if the right margin specification eliminates the print area (printable region to left margin) to the right margin specified value, this command is ignored.
n is a decimal description (max. 255 digits) using ASCII characters.

ESC * r T n NUL

[Name] Set raster top margin

[Code]

	ESC	*	r	T	n	NUL
ASCII						
Hex.	1B	2A	72	54	n	00
Decimal	27	42	114	84	n	0

[Defined Area] 0≤n≤2

[Initial Value] n = 2

[Function] Sets the raster top margin.
n is a decimal description (max. 255 digits) using ASCII characters.

n	Top margin
0	Set To Default
1	Set top margin using reverse paper feed.
2	Set standard top margin.

(*) This differs according to the model handling this command.

ESC * r K n NUL

[Name] Set raster print color

[Code]

	ESC	*	r	K	n	NUL
ASCII						
Hex.	1B	2A	72	4B	n	00
Decimal	27	42	114	75	n	0

[Defined Area] 0≤n≤3

[Initial Value] n = 0

[Function] Sets raster print color.
This command is effective only when specifying the 2 color mode using the line mode.
This command is ignored when not in the 2 color print mode.
n is a decimal description (max. 255 digits) using ASCII characters.

n	Print color
0	Black
1	Cyan
2	Magenta
3	Yellow

(*) This command is effective only when using a model handling 2 color printing. This command is ignored on non-compatible models.

b n1 n2 data

[Name] Send raster data (auto line feed)

[Code]

ASCII	b	n1	n2	d1	d2	...	dk
Hex.	62	n1	n2	d1	d2	...	dk
Decimal	98	n1	n2	d1	d2	...	dk

[Defined Area] 0≤n1≤255
0≤n2≤255
0≤d≤255
k= n1+n2 x 255
1≤k

[Initial Value] - - -

[Function] Sends raster data (auto line feed).
Raster data is sent in (n1 + n2 x 256) byte counts as binary data.
Raster data exceeding the print area currently set is discarded.
The image buffer expanded position is automatically line fed one dot row and moved to the left margin on the next line after expanded the image buffer data 1 dot row using this command.
Also, data expansion is duplicated on the data in the current image buffer (OR process).
The following shows expanded image buffer for the set raster print color.
n is a decimal description (max. 255 digits) using ASCII characters.

Print color	Expanded image buffer
Black	Image buffer for black
Cyan	Image buffer for color
Magenta	Image buffer for color
Yellow	Image buffer for color

k n1 n2 data

[Name] Transfer raster data

[Code]

ASCII	k	n1	n2	d1	d2	...	dk
Hex.	6B	n1	n2	d1	d2	...	dk
Decimal	107	n1	n2	d1	d2	...	dk

[Defined Area] 0≤n1≤255
0≤n2≤255
0≤d≤255
k≤ n1+n2 x 255
1≤k

[Initial Value] - - -

[Function] Sends raster data.
Raster data is sent in (n1 + n2 x 256) byte counts as binary data.
Raster data exceeding the print area currently set is discarded.
The image buffer expanded position returns to the head of the current dot row without an automatic line fed after expanding the image buffer data 1 dot row using this command.
Also, data expansion is duplicated on the data in the current image buffer (OR process).
The following shows expanded image buffer for the set raster print color.
n is a decimal description (max. 255 digits) using ASCII characters.

Print color	Expanded image buffer
Black	Image buffer for black
Cyan	Image buffer for black
Magenta	Image buffer for black
Yellow	Image buffer for black

ESC * r Y n NUL

[Name] Move vertical direction position (Line feed for specified dots)

[Code]

ASCII	ESC	*	r	Y	n	NUL
Hex.	1B	2A	72	59	n	00
Decimal	27	42	114	89	n	0

[Defined Area] - - -

[Initial Value] - - -

[Function] Moves vertical direction position.
Moves position n dots with this command.
When the current page length setting is in continuous print mode, and the n dots exceed the remaing dot count of the raster image buffer length, this moves up to the remaining dot count and ignores the overflow.
If the page length is set, it moves to the current page lenth and ignores the overflow.
Note that when there is overflow, this expands the next raster data after printing the raster image buffer data with the next raster data transfer and move vertical direction position command.
n is a decimal description (max. 255 digits) using ASCII characters.

ESC FF NUL

[Name] Execute FF mode

[Code]	ASCII	ESC	FF	NUL
	Hex.	1B	0C	00
	Decimal	27	12	0

[Defined Area] - - -
[Initial Value] - - -
[Function] Executes FF mode.
Executes operation specified by the FF mode setting command (ESC * r F n NUL).

ESC FF EOT

[Name] Execute EOT mode

[Code]	ASCII	ESC	FF	EOT
	Hex.	1B	0C	04
	Decimal	27	12	4

[Defined Area] - - -
[Initial Value] - - -
[Function] Executes EOT mode.
Executes operation specified by the EOT mode setting command (ESC * r E n NUL).

3-5) Black Mark Related Command Details

The following commands control top of form functions using black mark paper.
The following commands are effective only when black mark is set to be effective.

ESC d n

[Name] Auto cutter

[Code]

ASCII	ESC	d	n
Hex.	1B	64	n
Decimal	27	100	n

[Defined Area] 0≤d≤3
48≤d≤51 (”0” ≤d≤”3”)

[Initial Value] - - -

[Function] Executes the auto-cutter.
After auto-cutter is executed, the printer considers that to be the top of the page.

n	Auto cutter
0, 48	Full cut at the current position. Print data in line buffer is printed before a full cut. This command is ignored if the printer is not equipped with an auto-cutter.
1, 49	Partial cut at the current position. Print data in line buffer is printed before a partial cut. This command is ignored if the printer is not equipped with an auto-cutter.
2, 50	After executing top of form, paper is fed to cutting position, then a full cut. Print data in line buffer is printed before the operation described above. This command is ignored if the printer is not equipped with an auto-cutter.
3, 51	After executing top of form, paper is fed to cutting position, then a partial cut. Print data in line buffer is printed before the operation described above. This command is ignored if the printer is not equipped with an auto-cutter.

(*) The auto-cutter function operates in the following ways on models that only have a full cut or a partial cut.

- Models that perform only a full cut: Executes a full cut when for instructions calling for a partial cut.
- Models that perform only a partial cut: Executes a partial cut when there are for instructions calling for a full cut.

(*) When connected with a presenter, executes a full cut when instructed for a partial cut.

FF

[Name] Execute top of form
[Code] ASCII FF
Hex. 0C
Decimal 12

[Defined Area] - - -
[Initial Value] - - -
[Function] Executes top of form.

ESC C n

[Name] Set page length to n lines
[Code] ASCII ESC C N
Hex. 1B 43 N
Decimal 27 67 N

[Defined Area] 1≤n≤127
[Initial Value] (Form feed amount initial value x 42)
[Function] When black mark is effective, this command is ignored.

ESC C 0 n

[Name] Set page length to n x 24 mm units

[Code]					
	ASCII	ESC	C	0	n
	Hex.	1B	43	0	n
	Decimal	27	67	0	n

[Defined Area] 1≤n≤22
[Initial Value] (Form feed amount initial value x 42)
[Function] When black mark is effective, this command is ignored.

ESC c n

[Name] Set page length to n x 1mm units

[Code]				
	ASCII	ESC	c	n
	Hex.	1B	63	n
	Decimal	27	99	n

[Defined Area] 10≤n≤255
[Initial Value] (Form feed amount initial value x 42)
[Function] When black mark is effective, this command is ignored.

VT

[Name] Feed paper to vertical table position

[Code]

ASCII	VT
Hex.	0B
Decimal	11

[Defined Area] - - -

[Initial Value] - - -

[Function] When black mark is effective, this command is ignored.

ESC B n1 n2...nk NUL

[Name] Set vertical tab position

[Code]

ASCII	ESC	B	n1	n2	. .	nk	NUL
Hex.	1B	42	n1	n2	. .	nk	00
Decimal	27	66	n1	n2	. .	nk	0

[Defined Area] 1≤n≤255
0≤k≤16

[Initial Value] - - -

[Function] When black mark is effective, this command is ignored.

ESC B NUL

[Name] Clear vertical tab position

[Code]

ASCII	ESC	B	NUL
Hex.	1B	42	00
Decimal	27	66	0

[Defined Area] - - -

[Initial Value] - - -

[Function] When black mark is effective, this command is ignored.

3-6) USB Related Command Details

The following commands control USB I/F functions.
The following commands are effective only when using a USB I/F.

There are no commands for TSP600/700/800 and TUP900.

3-7) 2 Color Printing Command Details

The following commands control 2 color printing functions.
The following commands are effective only when using a model handling 2 color printing.

ESC RS c n

[Name] Set print color in 2 color print mode

[Code]	ASCII	ESC	RS	c	n
	Hex.	1B	1E	63	n
	Decimal	27	30	99	n

[Defined Area] 0≤n≤1
48≤n≤49（"0"≤n≤"1"）
[Initial Value] n = 0, 48 (When in 2 color print mode)
[Function] Specifies print color in 2 color print mode.
This command is ignored when not in the 2 color print mode.
Specifies black for the print color when in 2 color print mode.
The specification of this command is cleared only when the printer is reset. (Not cleared by ESC @)
The specification of this command is not cleared by ESC @ CAN.
However, print color is initialized to black by the ESC @ and CAN only when in the compatible 2 color print mode.

n	Specifies 2 color print mode color
0, 48	Black
1, 49	Red

ESC RS C n

[Name] Select/cancel 2 color print mode

[Code]

ASCII	ESC	RS	C	n
Hex.	1B	1E	43	n
Decimal	27	30	67	n

[Defined Area] Specification A
0≤n≤2
48≤n≤50（"0"≤n≤"2"）
Specification B
0≤n≤1
48≤n≤49（"0"≤n≤"1"）

[Initial Value] n = 0, 48

[Function] Specification A

n	Select/cancel 2 color print mode
0, 48	Cancels 2 color print mode This command cancels 2 color print mode, when in 2 color print mode. This command is ignored when the 2 color print mode is already cancelled. The specification of this command is not cleared by ESC @ CAN. The following processes are executed by canceling the 2 color print mode using this command. • Prints data in line buffer in 2 color print mode, if unprinted data exists in the line buffer. • Waits to stop printing when printing in 2 color print mode. • Recovers print density setting to single color mode setting. • Recovers print speed to single color mode setting. • Recovers logo print setting to single color mode setting.
1, 49	Selects 2 color print mode This command selects 2 color print mode, when in single color print mode. This command is ignored already in the 2 color print mode. The specification of this command is not cleared by ESC @ CAN. The following processes are executed by selecting the 2 color print mode using this command. • Prints data in line buffer in single color print mode, if unprinted data exists in the line buffer. • Waits to stop printing when printing in single color print mode. • Initializes print color setting (2 color print mode setting) • Initializes print density setting (memory switch setting) • Sets logo print setting to 2 color mode setting.

Specification B

n	Select/cancel 2 color print mode
0, 48	Cancels 2 color print mode This command cancels 2 color print mode, when in 2 color print mode. This command is ignored when the 2 color print mode is already cancelled. The specification of this command is not cleared by ESC @ CAN. The following processes are executed by canceling the 2 color print mode using this command. • Prints data in line buffer in 2 color print mode, if unprinted data exists in the line buffer. • Waits to stop printing when printing in 2 color print mode. • Recovers print density setting to single color mode setting. • Recovers print speed to single color mode setting. • Recovers logo print setting to single color mode setting.
1, 49	Selects 2 color print mode This command selects 2 color print mode, when in single color print mode. This command is ignored already in the 2 color print mode. The specification of this command is not cleared by ESC @ CAN. The following processes are executed by selecting the 2 color print mode using this command. • Prints data in line buffer in single color print mode, if unprinted data exists in the line buffer. • Waits to stop printing when printing in single color print mode. • Initializes print color setting (2 color print mode setting) • Initializes print density setting (memory switch setting) • Sets logo print setting to 2 color mode setting.

Supplement:
Specification Type A and Specification Type B differ per model.
See the COMMAND LIST BY MODEL in Chapter 6. SPECIAL APPENDIX for your model.

ESC 4

[Name] Select white/black inverted printing

[Code]

ASCII	ESC	4
Hex.	1B	34
Decimal	27	52

[Defined Area] - - -

[Initial Value] White/black inversion cancelled

[Function] Specifies white/black inversion for ANK characters and Chinese characters.
IBM block ignores white/black inversion.

ESC 5

[Name] Cancel white/black invertion

[Code]

ASCII	ESC	5
Hex.	1B	35
Decimal	27	53

[Defined Area] - - -

[Initial Value] White/black inversion cancelled

[Function] Cancels white/black inversion for ANK characters and Chinese characters.

ESC FS q n [x11 x12 y11 y12 d1...dk]1...[xn1 xn2 yn1 yn2 d1...dk]n

[Name] Register logo

[Code]

ASCII	ESC	FS	q	n	[x11	x12	y11	y12	d1	. .	dk]1	. .	[xn1	xn2	yn1	yn2	d1	. .	dk]n
Hex.	1B	1C	71	n	[x11	x12	y11	y12	d1	. .	dk]1	. .	[xn1	xn2	yn1	yn2	d1	. .	dk]n
Decimal	27	28	113	n	[x11	x12	y11	y12	d1	. .	dk]1	. .	[xn1	xn2	yn1	yn2	d1	. .	dk]n

[Defined Area]
1≤n≤255
0≤xn1≤255, 0≤xn2≤3
1≤(xn1 + xn2 x 256)≤1023
0≤yn1≤255, 0≤yn2≤1
1≤(yn1 + yn2 x 256)≤288
0≤d≤255
k = {(xn1 + xn2 x 256) x (yn1 + yn2 x 256) x 8}

[Initial Value]
- - -

[Function]
Parameter details

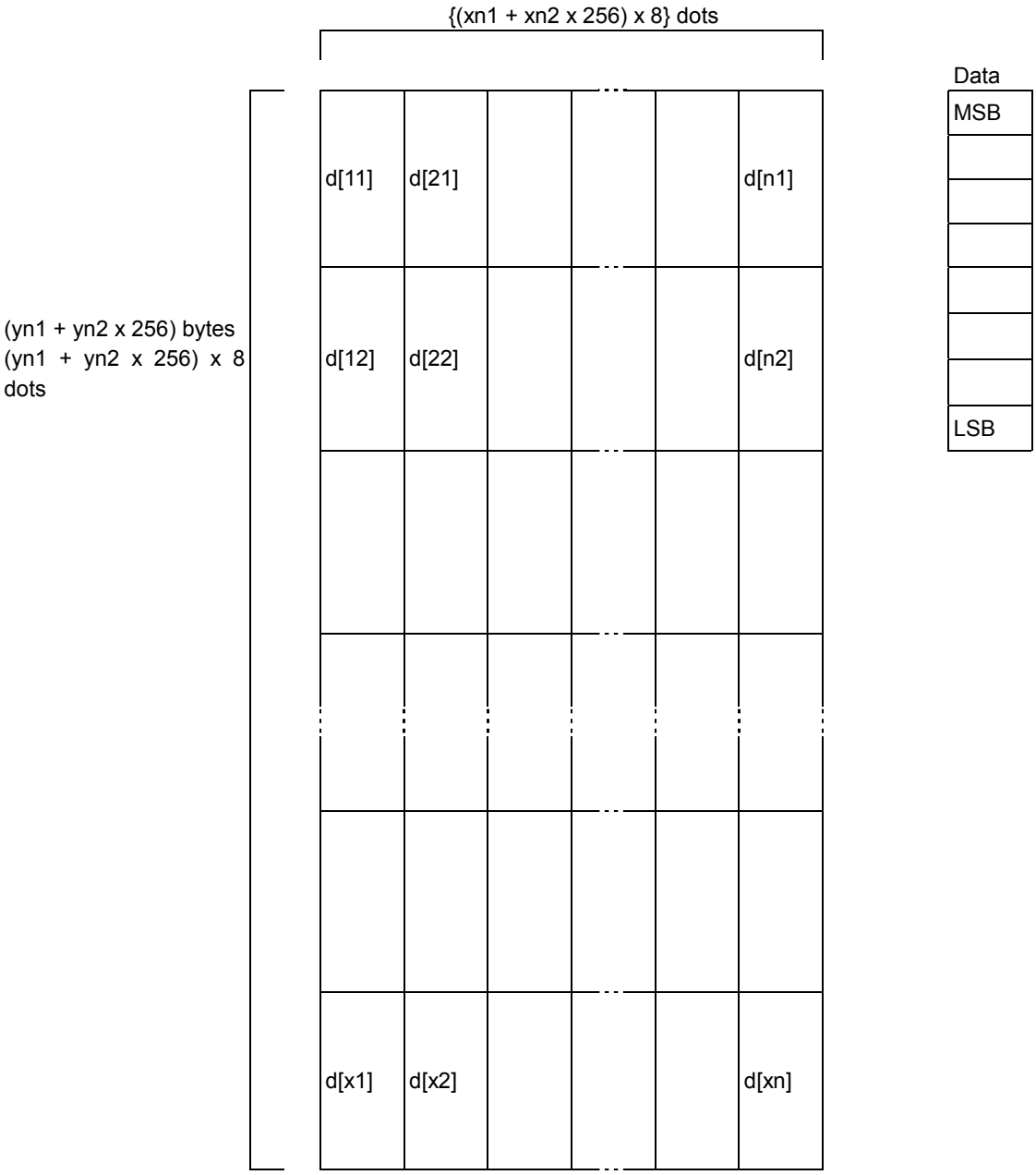
- n: Specifies registered logo count
- xn1, xn2: Horizontal size of registered logo {(xn1 + xn2 x 256) x 8} dots
- yn1, yn2: Vertical size of registered logo {(yn1 + yn2 x 256) x 8} dots
- d: Registered logo data
- k: Logo data count

This command should be specified at the top of the line.
When the first parameter is determined to be free of error, the printer starts processing this command.
When logo register processing starts, all previously defined data is deleted.
(It is not possible to reregister a portion of a plurality of defined logo data.)
Logo registration numbers are defined in rising order from 1.
The logo definition region is approximately 256 bytes.
If the defined area specified by the parameter is not empty, or if there is an error in the parameter specification, register processing is aborted. (The pre-registered and complete data is effective.)
The printer should be initialized if logo registration is completed or register processing is aborted.
If an error occurs while performing register processing (the time from when the first parameter is OK until th printer initialization is completed after registering a logo), error processing, mechanical operation and status processing cannot be performed.
The relationships between input data and the actual print are shown on the next page.

<When registering logos for 2 color printing>
Registration is possible regardless of the 2 color printing mode being specified or cancelled.
Register logos with the same capacity as the logo register number k (odd number) and k + 1 (even number).
If the capacity differs or the logo register number is 255, this command is ignored by the logo print command in the 2 color print mode.

<Note>
For USB or Ethernet I/F, it is necessary to always turn the printer OFF, then ON after executing a printer reset with this command. If this is condition is not met, printer operations are not guaranteed.

Relationships of logo and registered data
xn = xn1 + xn2 x 256、 yn = yn1 + yn2 x 256



ESC FS p n m

[Name] Print logo

[Code]						
	ASCII	ESC	FS	p	n	m
	Hex.	1B	1C	70	n	m
	Decimal	27	28	112	n	m

[Defined Area] 1≤n≤255
0≤m≤3
48≤m≤51（"0"≤m≤"3"）

[Initial Value] - - -

[Function] Prints the logo of registration number n registered using the logo registration command (ESC FS q) according to the print mode m.

m	Logo print mode
0, 48	Normal mode
1, 49	Double wide mode
2, 50	Double high mode
3, 51	Double high/wide mode

If there is unprinted data in the line buffer, this command is executed after printing that data. Therefore, it is not possible to print with other data in the same line (characters, bit images, bar codes).
Form feed obeys the vertical print size of the logo.
Adornments other than upside-down printing and expansion settings are unaffected.
The horizontal printing start position conforms to the left margin position and the horizontal print area conforms to the left and right margin settings.
If the logo horizontal print size exceeds the horizontal print region, the portion exceeding the area is not printed.

<When using the 2 color print mode>
When the logo register number n is odd:
Register number n is printed in black; register number n + 1 is printed in red and overlapped.
The command is ignored when the capacity of the register number n and the capacity of the register number n + 1 are different.
The command is ignored when the register number n = 255 is specified.
When the logo register number n is even:
Register number n is printed in black; register number n - 1 is printed in red and overlapped.
The command is ignored when the capacity of the register number n and the capacity of the register number n - 1 are different.
The command is ignored when the register number n = 255 is specified.

3-8) Presenter Related Command Details

The following commands control the presenter functions.
The following commands are effective only on models equipped with a presenter.

ESC SYN 0 n

[Name] Execute presenter paper recovery

[Code]					
	ASCII	ESC	SYN	0	n
	Hex.	1B	16	30	n
	Decimal	27	22	48	n

[Defined Area] n = 0
[Initial Value] - - -
[Function] Executes presenter paper recovery.
This command is ignored when a presenter is not connected.
Also, this command is executed when paper is supplied by the presenter, exists in the presenter and the paper has been cut. This command is ignored with under all other conditions. (Ignored when paper is being recovered.)

ESC SYN 1 n

[Name] Set presenter paper automatic recovery function and automatic recovery time

[Code]					
	ASCII	ESC	SYN	1	n
	Hex.	1B	16	30	n
	Decimal	27	22	48	n

[Defined Area] 0≤n≤255
[Initial Value] Memory switch setting
[Function] Sets presenter paper automatic recovery function and automatic recovery time.
This command is ignored when a presenter is not connected.
Settings using this command are effective from the next sheet when the printer processes this command and paper has already been supplied to the presenter.

N	Functions
n = 0	Paper automatic recovery function invalid.
1≤n≤255	Paper automatic recovery function valid. Automatic recovery time: n x 0.5 sec (0.5 sec to 127.5 sec)

ESC SYN 3 n

[Name] Acquire presenter paper counter

[Code]

ASCII	ESC	SYN	3	n
Hex.	1B	16	33	n
Decimal	27	22	51	n

[Defined Area] n = 0, 1
n = 48, 49（”0”, “1”）

[Initial Value] - - -

[Function] Acquires presenter paper counter.
This command is ignored when a presenter is not connected.
Counter can count to 0xFFFFFFFF sheets.
Counter is cleared to zero when the following conditions are met.
• At a printer reset
• At the <CAN> command
• At the <ESC> <SYN> 4 n command
The paper counter using this command sends the counter value at the time this command is processed.
The counter is counted up when paper is completely recovered or when pulled out.
The counter counts from when the power is turned ON, excluding the following.
• When paper is discharged because of an error
• When printing using self-print
• When paper in the presenter is discharged when the power is turned ON

N	Counter
n = 0, 48	Acquires paper reel counter
n = 1, 49	Acquires paper recovery counter

<Counter transmission format from printer: When using the paper reel counter>
Printer transmission: ESC SYN 3 n c1 c2 c3 c4
Reel counter: c4 + (c3 x 256) + (c2 x 256 x 256) + (c1 x 256 x 256 x256)

ESC SYN 4 n

[Name] Initialize presenter paper counter

[Code]

ASCII	ESC	SYN	4	n
Hex.	1B	16	34	n
Decimal	27	22	52	n

[Defined Area] n = 0

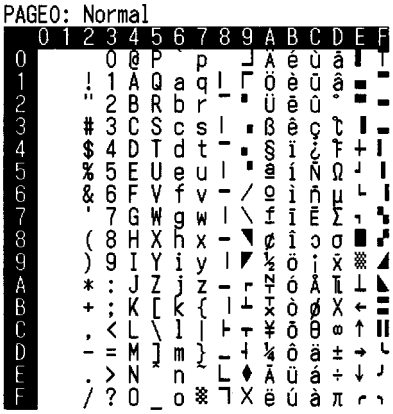
[Initial Value] - - -

[Function] Initializes the presenter paper counter (paper reel counter/paper recovery counter).
Initialization of the paper counter using this command is executed when this command is processed.

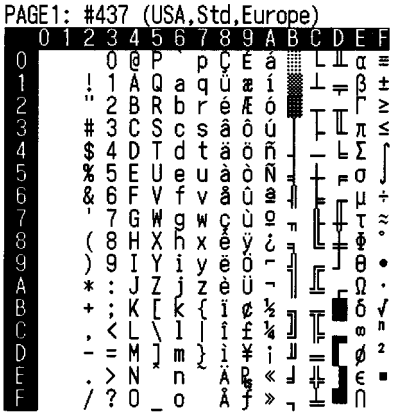
4. CHARACTER CODE TABLES

4-1) ANK Codes

PAGE0: Normal

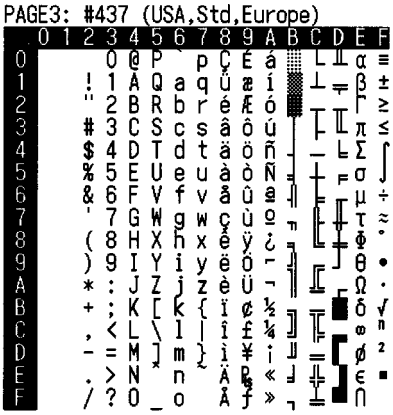


PAGE1: #437 (USA,Std,Europe)

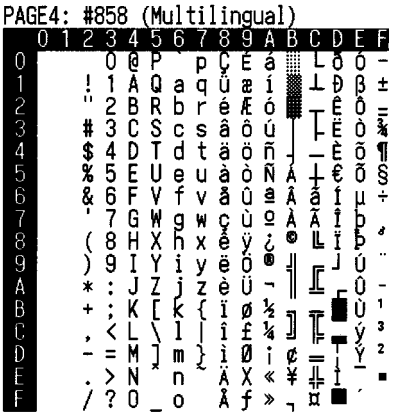


PAGE2: Katakana

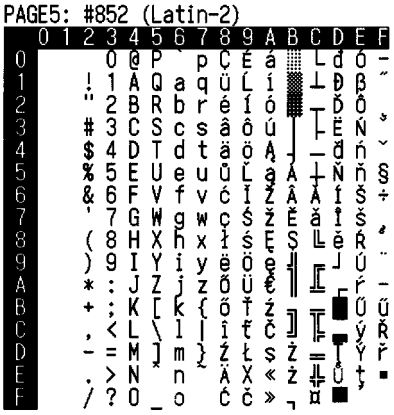
PAGE3: #437 (USA,Std,Europe)



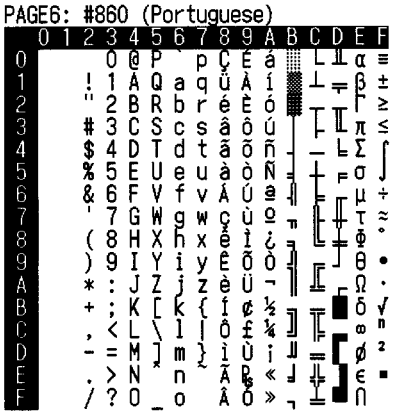
PAGE4: #858 (Multilingual)



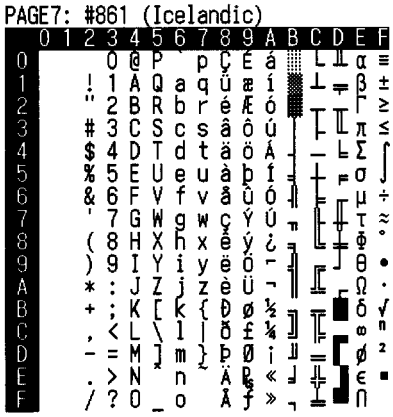
PAGE5: #852 (Latin-2)



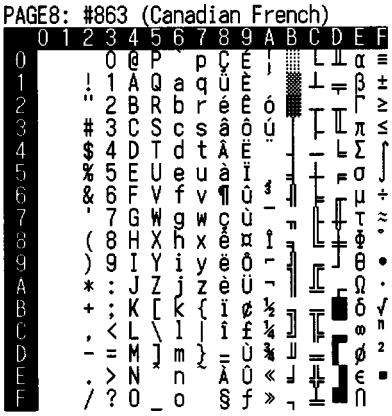
PAGE6: #860 (Portuguese)



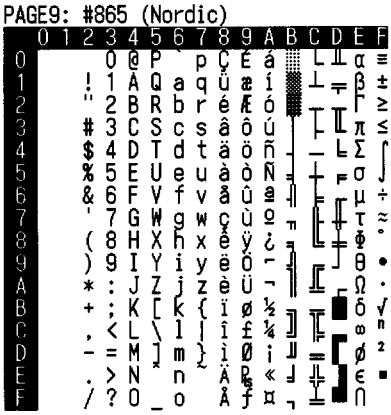
PAGE7: #861 (Icelandic)



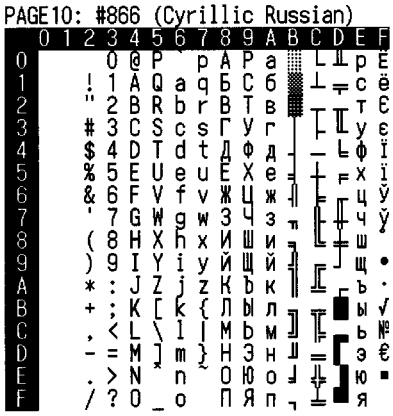
PAGE8: #863 (Canadian French)



PAGE9: #865 (Nordic)

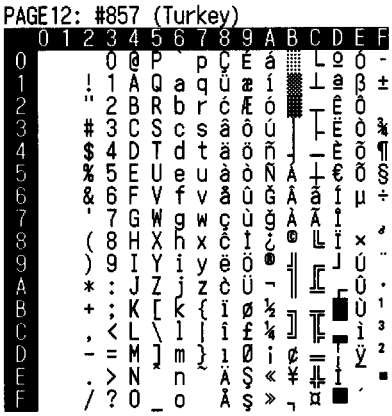


PAGE10: #866 (Cyrillic Russian)

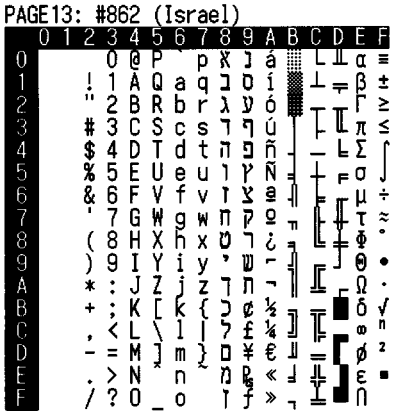


PAGE11: #855 (Cyrillic Bulgarian)

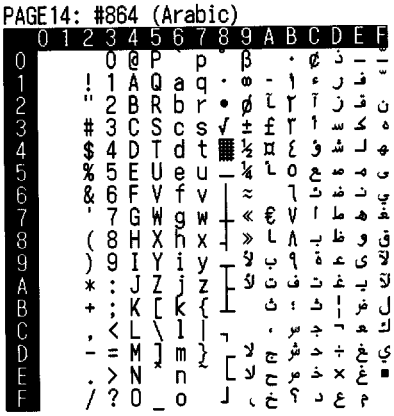
PAGE12: #857 (Turkey)



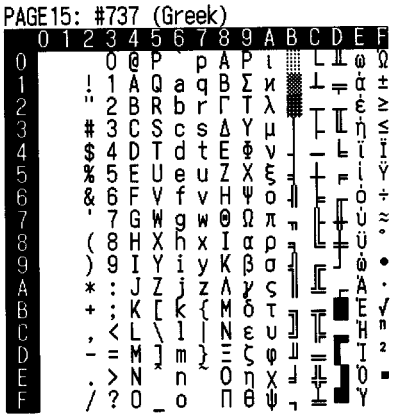
PAGE13: #862 (Israel)



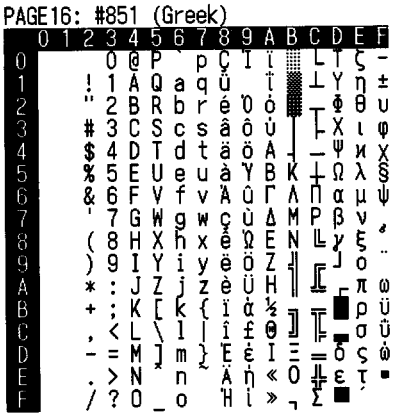
PAGE14: #864 (Arabic)



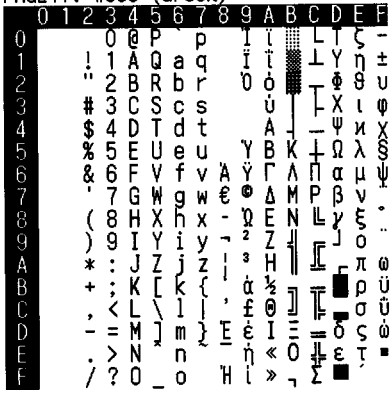
PAGE15: #737 (Greek)



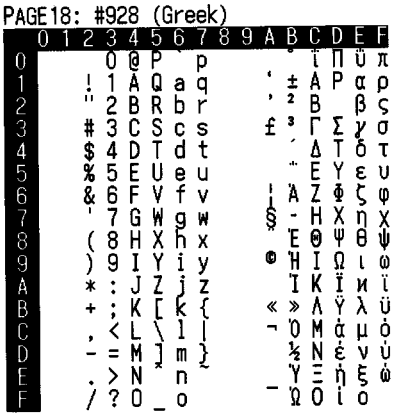
PAGE16: #851 (Greek)



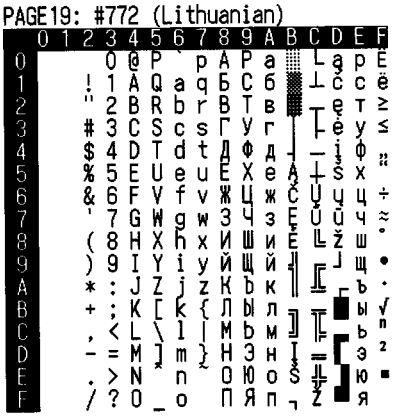
PAGE17: #869 (Greek)



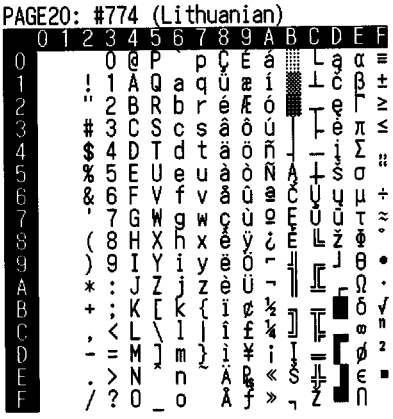
PAGE18: #928 (Greek)



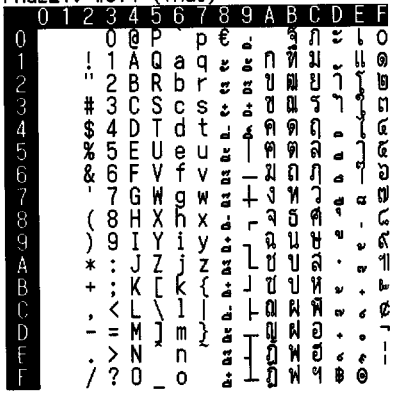
PAGE19: #772 (Lithuanian)



PAGE20: #774 (Lithuanian)



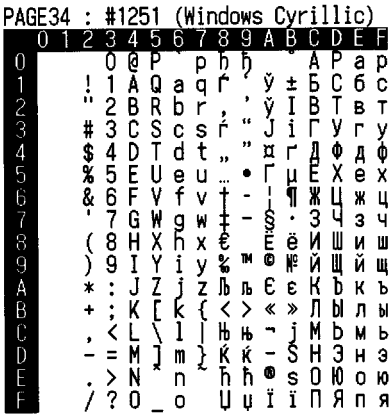
PAGE21: #874 (Thai)



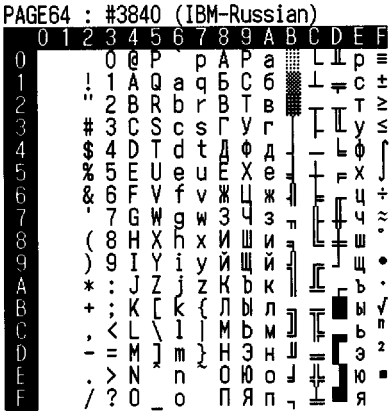
PAGE32 : #1252 (Windows Latin-1)

PAGE33 : #1250 (Windows Latin-2)

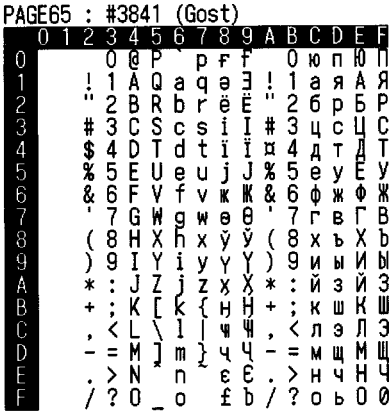
PAGE34 : #1251 (Windows Cyrillic)



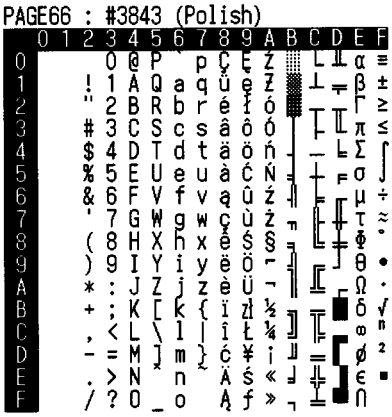
PAGE64 : #3840 (IBM-Russian)



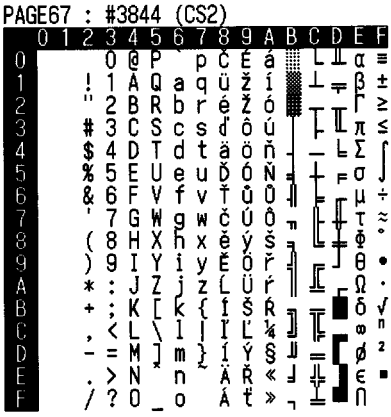
PAGE65 : #3841 (Gost)



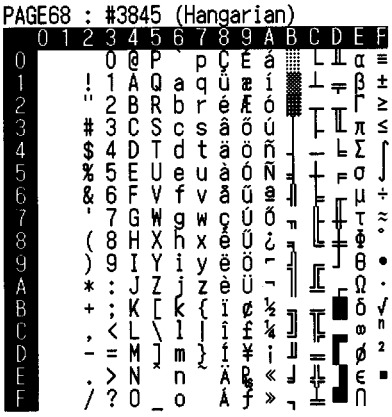
PAGE66 : #3843 (Polish)



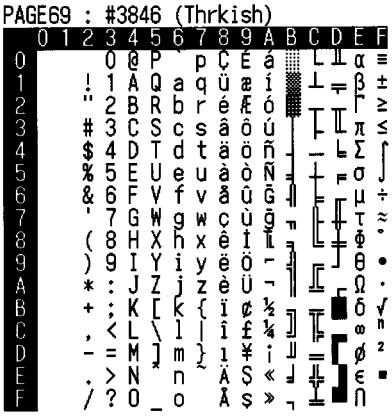
PAGE67 : #3844 (CS2)



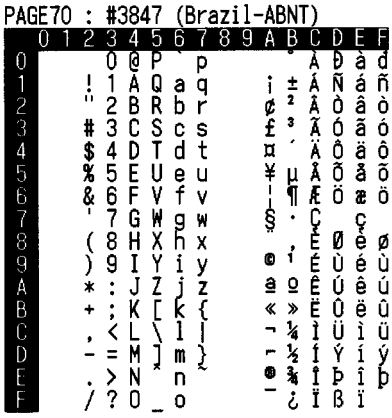
PAGE68 : #3845 (Hangarian)



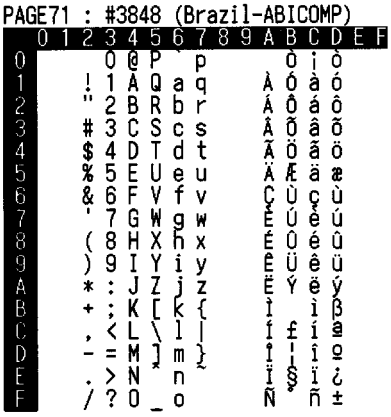
PAGE69 : #3846 (Thrkish)



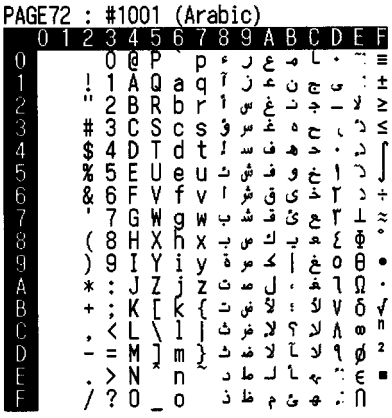
PAGE70 : #3847 (Brazil-ABNT)



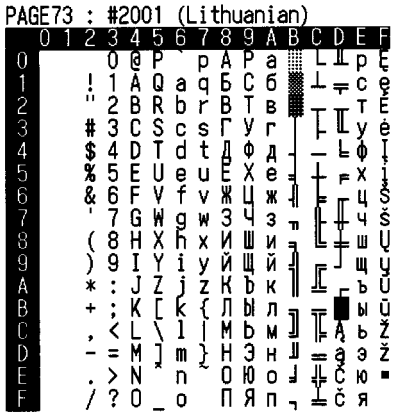
PAGE71 : #3848 (Brazil-ABICOMP)



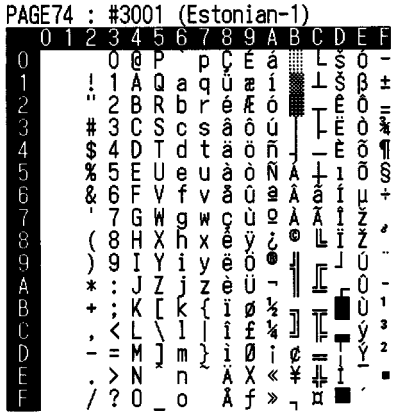
PAGE72 : #1001 (Arabic)



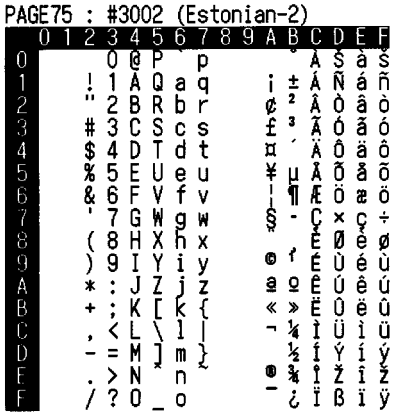
PAGE73 : #2001 (Lithuanian)



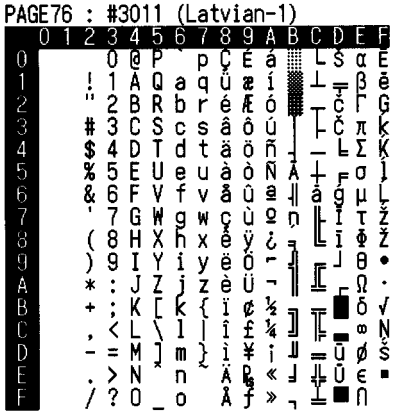
PAGE74 : #3001 (Estonian-1)



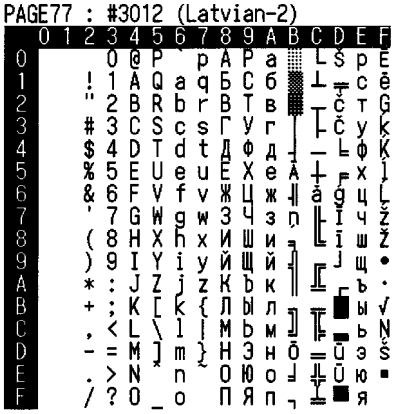
PAGE75 : #3002 (Estonian-2)



PAGE76 : #3011 (Latvian-1)

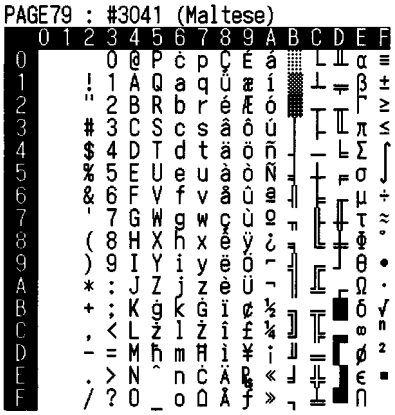


PAGE77 : #3012 (Latvian-2)



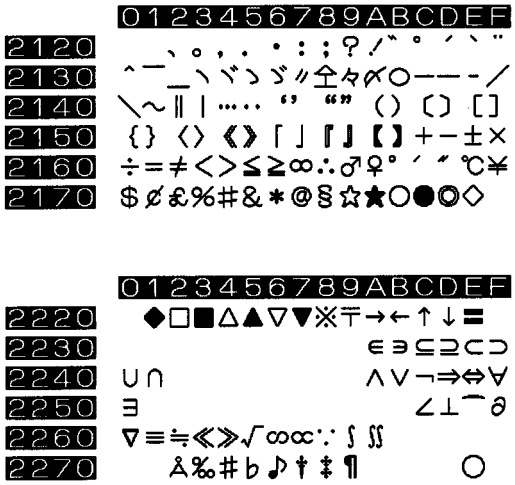
PAGE78 : #3021 (Bulgarian)

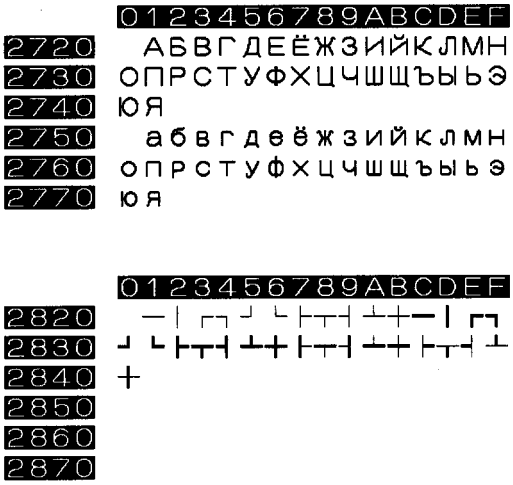
PAGE79 : #3041 (Maltese)

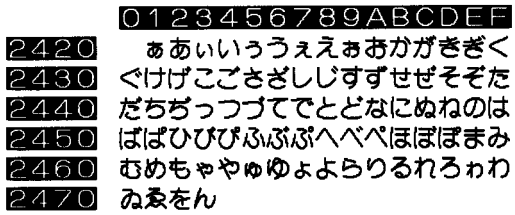


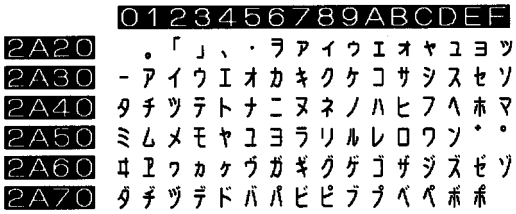
4-2) Japanese Character Codes

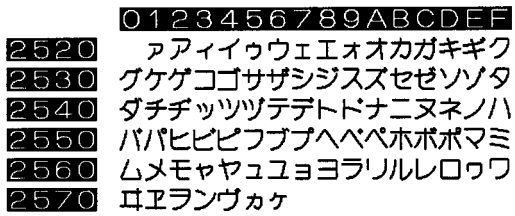
4-2-1) JIS Code Type (Conforming to JIS x0208-1983)

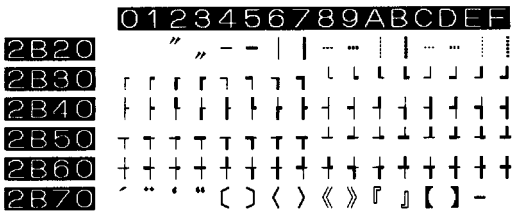


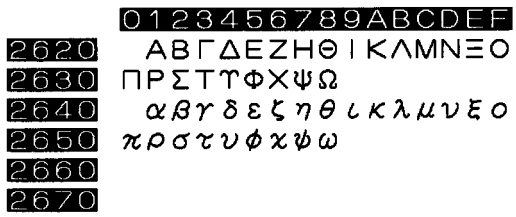


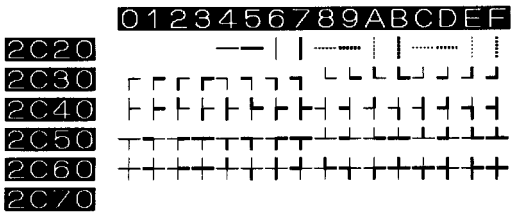












	0 1 2 3 4 5 6 7 8 9 A B C D E F
2D20	①②③④⑤⑥⑦⑧⑨⑩⑪⑫⑬⑭⑮
2D30	⑯⑰⑱⑲⑳ Ⅰ Ⅱ Ⅲ Ⅳ Ⅴ Ⅵ Ⅶ Ⅷ Ⅸ Ⅹ
2D40	ミリキロ ヤール グラム トン アール ヘクタール リットル ワット カロリー ドル セント パーセント ミリバール
2D50	mmcmkmmgkgccm² 平成
2D60	″ �„ No.K.K TEL ㊤ ㊥ ㊦ ㊧ ㊨ ㈱ ㈲ ㍾ ㍽ ㍼ ㍻
2D70	≒ ≡ ∫ ∮ Σ √ ⊥ ∠ ∟ ⊿ ∵ ∩ ∪

	0 1 2 3 4 5 6 7 8 9 A B C D E F
2E20	
2E30	
2E40	
2E50	
2E60	
2E70	

	0 1 2 3 4 5 6 7 8 9 A B C D E F
2F20	
2F30	
2F40	
2F50	
2F60	
2F70	

	0 1 2 3 4 5 6 7 8 9 A B C D E F
3020	亜唖娃阿哀愛挨姶逢葵茜穐悪握渥
3030	旭葦芦鯵梓圧斡扱宛姐虻飴絢綾鮎或
3040	粟袷安庵按暗案闇鞍杏以伊位依偉囲
3050	夷委威尉惟意慰易椅為畏異移維緯胃
3060	萎衣謂違遺医井亥域育郁磯一壱溢逸
3070	稲茨芋鰯允印咽員因姻引飲淫胤蔭

	0 1 2 3 4 5 6 7 8 9 A B C D E F
3120	院陰隠韻吋右宇烏羽迂雨卯鵜窺丑
3130	碓臼渦嘘唄欝蔚鰻姥厩浦瓜閏噂云運
3140	雲荏餌叡営嬰影映曳栄永泳洩瑛盈穎
3150	頴英衛詠鋭液疫益駅悦謁越閲榎厭円
3160	園堰奄宴延怨掩援沿演炎焔煙燕猿縁
3170	艶苑薗遠鉛鴛塩於汚甥凹央奥往応

	0 1 2 3 4 5 6 7 8 9 A B C D E F
3220	押旺横欧殴王翁襖鴬鴎黄岡沖荻億
3230	屋憶臆桶牡乙俺卸恩温穏音下化仮何
3240	伽価佳加可嘉夏嫁家寡科暇果架歌河
3250	火珂禍禾稼箇花苛茄荷華菓蝦課嘩貨
3260	迦過霞蚊俄峨我牙画臥芽蛾賀雅餓駕
3270	介会解回塊壊廻快怪悔恢懐戒拐改

	0 1 2 3 4 5 6 7 8 9 A B C D E F
3320	魁晦械海灰界皆絵芥蟹開階貝凱劾
3330	外咳害崖慨概涯碍蓋街該鎧骸浬馨蛙
3340	垣柿蛎鈎劃嚇各廓拡撹格核殻獲確穫
3350	覚角赫較郭閣隔革学岳楽額顎掛笠樫
3360	橿梶鰹潟割喝恰括活渇滑葛褐轄且鰹
3370	叶椛樺鞄株兜竃蒲釜鎌噛鴨栢茅萱

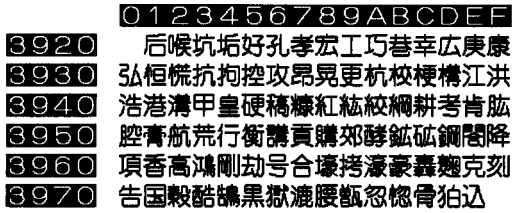
	0 1 2 3 4 5 6 7 8 9 A B C D E F
3420	粥刈苅瓦乾侃冠寒刊勘勧巻喚堪姦
3430	完官寛干幹患感慣憾換敢柑桓棺款歓
3440	汗漢潤灌環甘監看竿管簡緩缶翰肝艦
3450	観諌貫還鑑間閑関陥韓館舘丸含岸
3460	厳玩癌眼岩翫贋雁頑顔願企伎危喜器
3470	基奇嬉寄岐希幾忌揮机旗既期棋棄

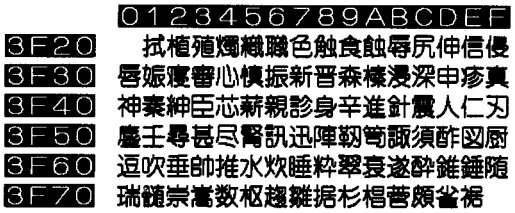
	0 1 2 3 4 5 6 7 8 9 A B C D E F
3520	機帰毅気汽畿祈季稀紀徽規記貴起
3530	軌輝飢騎鬼亀偽儀妓宜戯技擬欺犠疑
3540	祇義蟻誼議掬菊鞠吉吃喫桔橘詰砧杵
3550	黍却客脚虐逆丘久仇休及吸宮弓急救
3560	朽求汲泣灸球究窮笈級糾給旧牛去居
3570	巨拒拠挙渠虚許距鋸漁僅魚亨享京

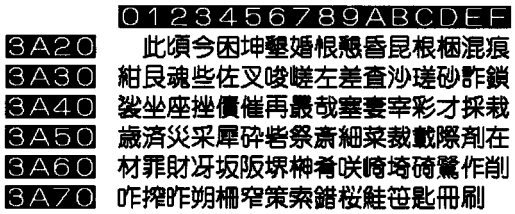
	0 1 2 3 4 5 6 7 8 9 A B C D E F
3620	供侠僑兇競共凶協匡卿叫喬境峡強
3630	彊怯恐恭挟教橋況狂狭矯胸脅興蕎郷
3640	鏡響饗驚仰凝尭暁業局曲極玉桐粁僅
3650	勤均巾錦斤欣欽琴禁禽筋緊芹菌衿襟
3660	謹近金吟銀九倶句区狗玖矩苦躯駆駈
3670	駒具愚虞喰空偶寓遇隅串櫛釧屑屈

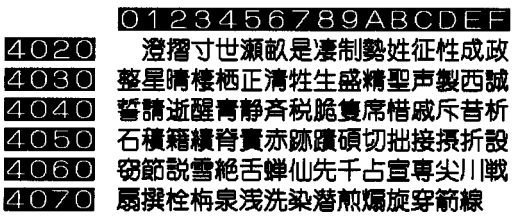
	0 1 2 3 4 5 6 7 8 9 A B C D E F
3720	掘窟沓靴轡窪熊隈粂栗繰桑鍬勲君
3730	薫訓群軍郡卦袈祁係傾刑兄啓圭珪型
3740	契形径恵慶慧憩掲携敬景桂渓畦稽系
3750	経継繋罫茎荊蛍計詣警軽頚鶏芸迎鯨
3760	劇戟撃激隙桁傑欠決潔穴結血訣月件
3770	倹倦健兼券剣喧圏堅嫌建憲懸拳捲

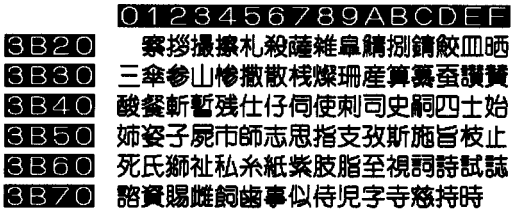
	0 1 2 3 4 5 6 7 8 9 A B C D E F
3820	検権牽犬献研硯絹県肩見謙賢軒遣
3830	鍵険顕験鹸元原厳幻弦減源玄現絃舷
3840	言諺限乎個古呼固姑孤己庫弧戸故枯
3850	湖狐糊袴股胡菰虎誇跨鈷雇顧鼓五互
3860	伍午呉吾娯後御悟梧檎瑚碁語誤護醐
3870	乞鯉交佼侯候倖光公功効勾厚口向


0123456789ABCDEF
3920 后喉坑垢好孔孝宏工巧巷幸広庚康
3930 弘恒慌抗拘控攻昂晃更杭校梗構江洪
3940 浩港溝甲皇硬稿糠紅紘絞綱耕考肯肱
3950 腔膏航荒行衡講貢購郊酵鉱砿鋼閤降
3960 項香高鴻剛劫号合壕拷濠豪轟麹克刻
3970 告国穀酷鵠黒獄漉腰甑忽惚骨狛込

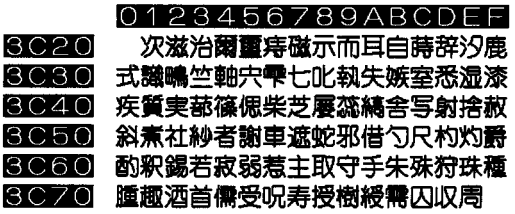

0123456789ABCDEF
3F20 拭楕殖燭織職色触食蝕辱尻伸信侵
3F30 唇娠寝審心慎振新晋森榛浸深申疹真
3F40 神紳臣芯薪親診身辛進針震人仁刃
3F50 塵壬尋甚尽腎訊迅陣靭笥諏須酢図厨
3F60 逗吹垂帥推水炊睡粋翠衰遂酔錐錘随
3F70 瑞髄崇嵩数枢趨雛据杉椙菅頗雀裾

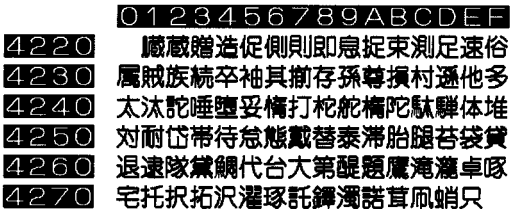

0123456789ABCDEF
3A20 此頃今困坤墾婚恨懇昏昆根梱混痕
3A30 紺艮魂些佐叉唆嗟左差査沙瑳砂詐鎖
3A40 裟坐座挫債催再最哉塞妻宰彩才採栽
3A50 歳済災采犀砕砦祭斎細菜裁載際剤在
3A60 材罪財冴坂阪堺榊肴咲崎埼碕鷺作削
3A70 咋搾昨朔柵窄策索錯桜鮭笹匙冊刷


0123456789ABCDEF
4020 澄摺寸世瀬畝是凄制勢姓征性成政
4030 整星晴棲栖正清牲生盛精聖声製西誠
4040 誓請逝醒青静斉税脆隻席惜戚斥昔析
4050 石積籍績脊責赤跡蹟碩切拙接摂折設
4060 窃節説雪絶舌蝉仙先千占宣専尖川戦
4070 扇撰栓栴泉浅洗染潜煎煽旋穿箭線


0123456789ABCDEF
3B20 察拶撮擦札殺薩雑皐錆捌錆鮫皿晒
3B30 三傘参山惨撒散桟燦珊産算纂蚕讃賛
3B40 酸餐斬暫残仕仔伺使刺司史嗣四士始
3B50 姉姿子屍市師志思指支孜斯施旨枝止
3B60 死氏獅祉私糸紙紫肢脂至視詞詩試誌
3B70 諮資賜雌飼歯事似侍児字寺慈持時

0123456789ABCDEF
4120 繊賛腺舛船薦詮賤践選遷銭銑閃鮮
4130 前善漸然全禅繕膳糧噌塑岨措曾曽楚
4140 狙疏踈礎祖租粗素組蘇訴阻遡鼠僧創
4150 双叢倉喪壮奏爽宋層匝惣想捜掃挿掻
4160 操早曹巣槍槽漕燥争痩相窓糟総綜聡
4170 草荘葬蒼藻装走送遭鎗霜騒像増憎


0123456789ABCDEF
3C20 次滋治爾璽痔磁示而耳自蒔辞汐鹿
3C30 式識鴫竺軸宍雫七叱執失嫉室悉湿漆
3C40 疾質実蔀篠偲柴芝屡蕊縞舎写射捨赦
3C50 斜煮社紗者謝車遮蛇邪借勺尺杓灼爵
3C60 酌釈錫若寂弱惹主取守手朱殊狩珠種
3C70 腫趣酒首儒受呪寿授樹綬需囚収周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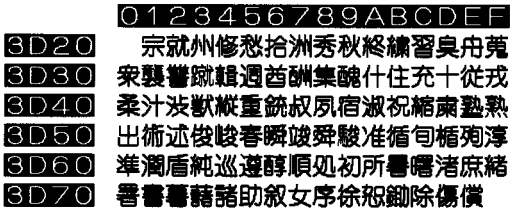
4220 臓蔵贈造促側則即息捉束測足速俗
4230 属賊族続卒袖其揃存孫尊損村遜他多
4240 太汰詑唾堕妥惰打柁舵楕陀駄騨体堆
4250 対耐岱帯待怠態戴替泰滞胎腿苔袋貸
4260 退逮隊黛鯛代台大第醍題鷹滝瀧卓啄
4270 宅托択拓沢濯琢託鐸濁諾茸凧蛸只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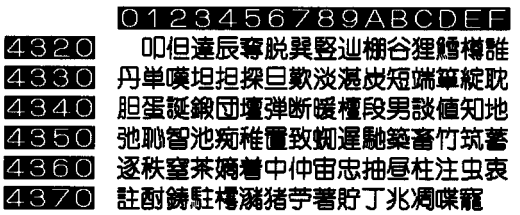
3D20 宗就州修愁拾洲秀秋終繍習臭舟蒐
3D30 衆襲讐蹴輯週酋酬集醜什住充十従戎
3D40 柔汁渋獣縦重銃叔夙宿淑祝縮粛塾熟
3D50 出術述俊峻春瞬竣舜駿准循旬楯殉淳
3D60 準潤盾純巡遵醇順処初所暑曙渚庶緒
3D70 署書薯藷諸助叙女序徐恕鋤除傷償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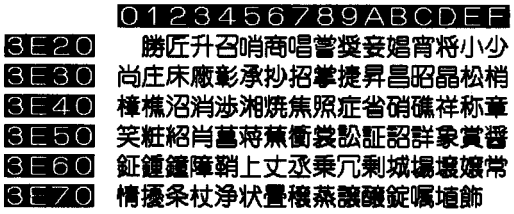
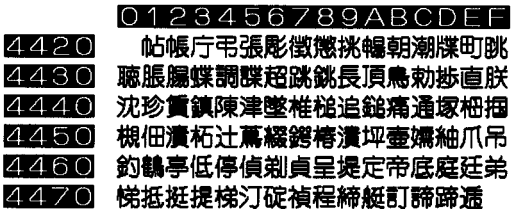
4320 叩但達辰奪脱巽竪辿棚谷狸鱈樽誰
4330 丹単嘆坦担探旦歎淡湛炭短端箪綻耽
4340 胆蛋誕鍛団壇弾断暖檀段男談値知地
4350 弛恥智池痴稚置致蜘遅馳築畜竹筑蓄
4360 逐秩窒茶嫡着中仲宙忠抽昼柱注虫衷
4370 註酎鋳駐樗瀦猪苧著貯丁兆凋喋寵


0123456789ABCDEF
3E20 勝匠升召哨商唱嘗奨妾娼宵将小少
3E30 尚庄床廠彰承抄招掌捷昇昌昭晶松梢
3E40 樟樵沼消渉湘焼焦照症省硝礁祥称章
3E50 笑粧紹肖菖蒋蕉衝裳訟証詔詳象賞醤
3E60 鉦鍾鐘障鞘上丈丞乗冗剰城場壌嬢常
3E70 情擾条杖浄状畳穣蒸譲醸錠嘱埴飾


0123456789ABCDEF
4420 帖帳庁弔張彫徴懲挑暢朝潮牒町眺
4430 聴脹腸蝶調諜超跳銚長頂鳥勅捗直朕
4440 沈珍賃鎮陳津墜椎槌追鎚痛通塚栓摑
4450 槻佃漬柘辻蔦綴鍔椿潰坪壺嬬紬爪吊
4460 釣鶴亭低停偵剃貞呈堤定帝底庭廷弟
4470 悌抵挺提梯汀碇禎程締艇訂諦蹄逓

	0 1 2 3 4 5 6 7 8 9 A B C D E F
4520	邸鄭釘鼎泥摘擢敵滴的笛適鏑溺哲
4530	徹撤轍迭鉄典填天展店添纏甜貼転顛
4540	点伝殿澱田電兎吐堵塗妬屠徒斗杜渡
4550	登菟賭途都鍍砥砺努度土奴怒倒党冬
4560	凍刀唐塔塘套宕島嶋悼投搭東桃梼棟
4570	盗淘湯涛灯燈当痘祷等答筒糖統到

	0 1 2 3 4 5 6 7 8 9 A B C D E F
4620	董蕩藤討謄豆踏逃透鐙陶頭騰闘働
4630	動同堂導憧撞洞瞳童胴萄道銅峠鴇匿
4640	得徳涜特督禿篤毒独読栃橡凸突椴届
4650	鳶苫寅酉瀞噸屯惇敦沌豚遁頓呑鈍
4660	奈那内乍凪薙謎灘捺鍋楢馴縄畷南楠
4670	軟難汝二尼弐迩匂賑肉虹廿日乳入

	0 1 2 3 4 5 6 7 8 9 A B C D E F
4720	如尿韮任妊忍認濡禰祢寧葱猫熱年
4730	念捻撚燃粘乃廼之埜嚢悩濃納能脳膿
4740	農覗蚤巴把播覇杷波派琶破婆罵芭馬
4750	俳廃拝排敗杯盃牌背肺輩配倍培媒梅
4760	楳煤狽買売賠陪這蝿秤矧萩伯剥博拍
4770	柏泊白箔粕舶薄迫曝漠爆縛莫駁麦

	0 1 2 3 4 5 6 7 8 9 A B C D E F
4820	函箱硲箸肇筈櫨幡肌畑畠八鉢溌発
4830	醗髪伐罰抜筏閥鳩噺塙蛤隼伴判半反
4840	叛帆搬斑板氾汎版犯班畔繁般藩販範
4850	采煩頒飯挽晩番盤磐蕃蛮匪卑否妃庇
4860	彼悲扉批披斐比泌疲皮碑秘緋罷肥被
4870	誹費避非飛樋簸備尾微枇毘琵眉美

	0 1 2 3 4 5 6 7 8 9 A B C D E F
4920	鼻柊稗匹疋髭彦膝菱肘弼必畢筆逼
4930	桧姫媛紐百謬俵彪標氷漂瓢票表評豹
4940	廟描病秒苗錨鋲蒜蛭鰭品彬斌浜瀕貧
4950	賓頻敏瓶不付埠夫婦富冨布府怖扶敷
4960	斧普浮父符腐膚芙譜負賦赴阜附侮撫
4970	武舞葡蕪部封楓風葺蕗伏副復幅服

	0 1 2 3 4 5 6 7 8 9 A B C D E F
4A20	福腹複覆淵弗払沸仏物鮒分吻噴墳
4A30	憤扮焚奮粉糞紛雰文聞丙併兵塀幣平
4A40	弊柄並蔽閉陛米頁僻壁癖碧別瞥蔑箆
4A50	偏変片篇編辺返遍便勉娩弁鞭保舗鋪
4A60	圃捕歩甫補輔穂募墓慕戊暮母簿菩倣
4A70	俸包呆報奉宝峰峯崩庖抱捧放方朋

	0 1 2 3 4 5 6 7 8 9 A B C D E F
4B20	法泡烹砲縫胞芳萌蓬蜂褒訪豊邦鋒
4B30	飽鳳鵬乏亡傍剖坊妨帽忘忙房暴望某
4B40	棒冒紡肪膨謀貌貿鉾防吠頬北僕卜墨
4B50	撲朴牧睦穆釦勃没殆堀幌奔本翻凡盆
4B60	麻摩磨魔麻埋妹昧枚毎哩槙幕膜枕鮪柾
4B70	鱒桝亦俣又抹末沫迄侭繭麿万慢満

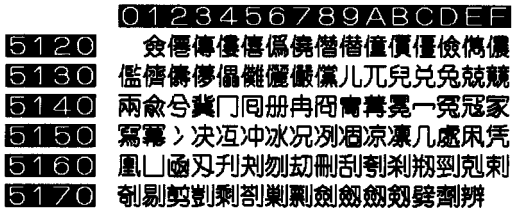
	0 1 2 3 4 5 6 7 8 9 A B C D E F
4C20	漫蔓味未魅巳箕岬密蜜湊蓑稔脈妙
4C30	粍民眠務夢無牟矛霧鵡椋婿娘冥名命
4C40	明盟迷銘鳴姪牝滅免棉綿緬面麺摸模
4C50	茂妄孟毛猛盲網耗蒙儲木黙目杢勿餅
4C60	尤戻籾貰問悶紋門匁也冶夜爺耶野弥
4C70	矢厄役約薬訳躍靖柳薮鑓愉愈油癒

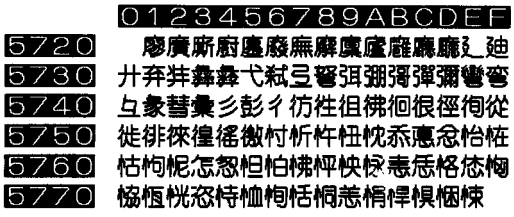
	0 1 2 3 4 5 6 7 8 9 A B C D E F
4D20	諭輸唯佑優勇友有幽悠憂揖有柚湧
4D30	涌猶猷由祐裕誘遊邑郵雄融夕予余与
4D40	誉輿預傭幼妖容庸揚揺擁曜楊様洋溶
4D50	熔用窯羊耀葉蓉要謡踊遥陽養慾抑欲
4D60	沃浴翌翼淀羅螺裸来莱頼雷洛絡落酪
4D70	乱卵嵐欄濫藍蘭覧利吏履李梨理璃

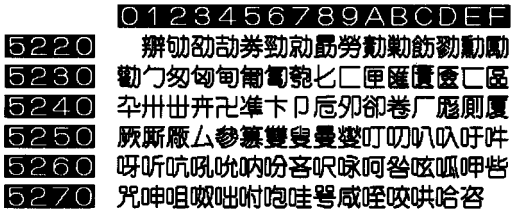
	0 1 2 3 4 5 6 7 8 9 A B C D E F
4E20	痢裏裡里離陸律率立葎掠略劉流溜
4E30	琉留硫粒隆竜龍侶慮旅虜了亮僚両凌
4E40	寮料梁涼猟療瞭稜糧良諒遼量陵領力
4E50	緑倫厘林淋燐琳臨輪隣鱗麟瑠塁涙累
4E60	類令伶例冷励嶺怜玲礼苓鈴隷零霊麗
4E70	齢暦歴列劣烈裂廉恋憐漣煉簾練聯

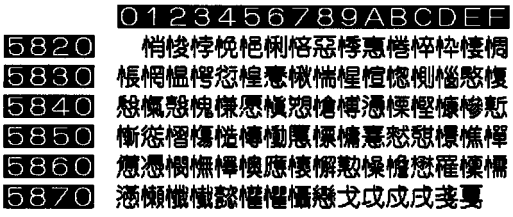
	0 1 2 3 4 5 6 7 8 9 A B C D E F
4F20	蓮連錬呂魯櫓炉賂路露労婁廊弄朗
4F30	楼榔浪漏牢狼篭老聾蝋郎六麓禄肋録
4F40	論倭和話歪賄脇惑枠鷲亙亘鰐詫藁蕨
4F50	椀湾碗腕
4F60	
4F70	

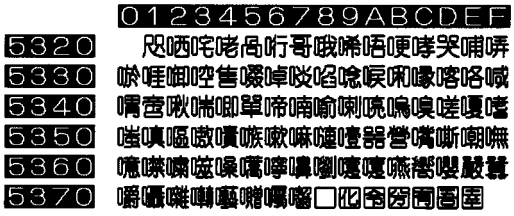
	0 1 2 3 4 5 6 7 8 9 A B C D E F
5020	弋丐丕个丱丶并丿乂乖乘亂亅豫事
5030	舒弍于亞亟亠亢亰亳亶从仍仄仆仂仗
5040	仞伃仟价伉佚估佛佝佗佇佶侈侏侘佻
5050	佩佰侑佯來侖儘俔俟俎俘俛俑俚俐俤
5060	俥倚倨倔倪倥倅俶倡倩倬俾俯們倆
5070	偃假會偕偐偈做偖偬偸傀傚傅傴傲

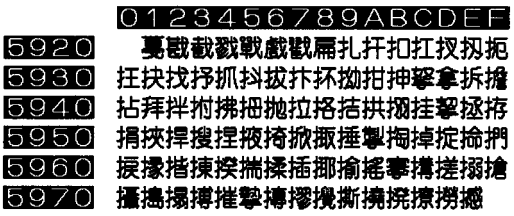


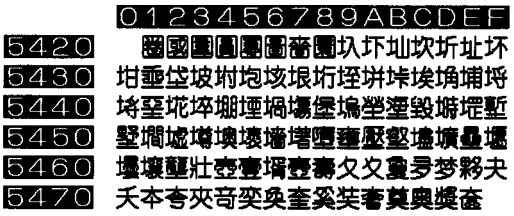


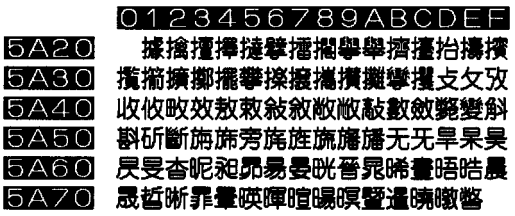


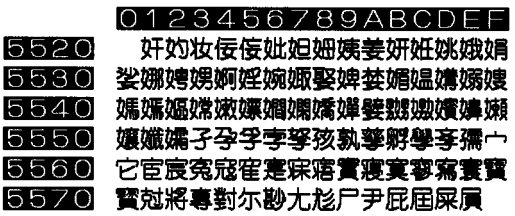


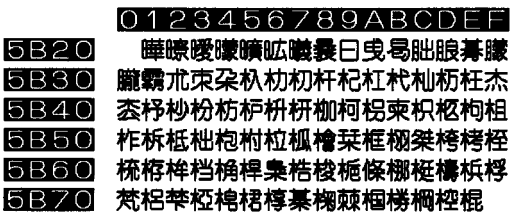


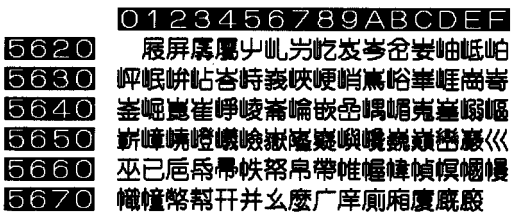


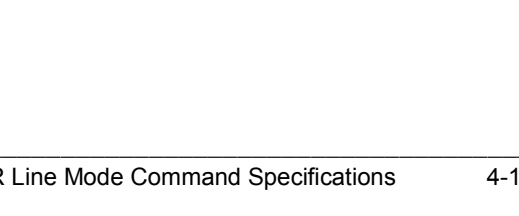


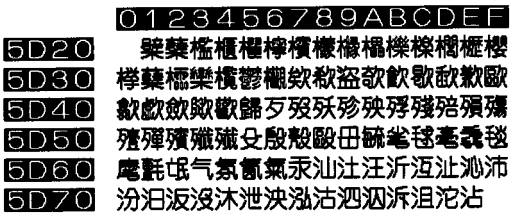


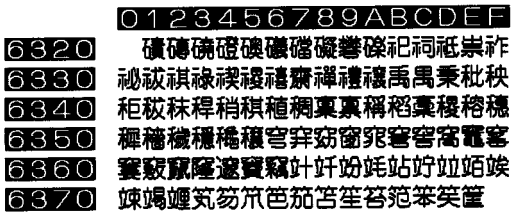




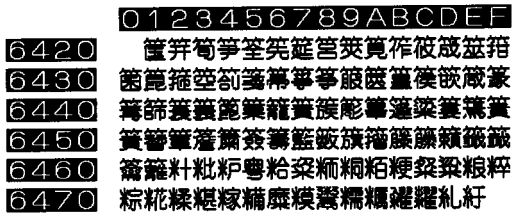





0 1 2 3 4 5 6 7 8 9 A B C D E F
5D20 欒藥檻欖欐檸檳檬檸檑櫟櫻
5D30 櫸藥櫺樂欖鬱欟欸秘盜欹飲歌歃歟歐
5D40 歖歔歛歟歡歸歹歿殀殄殃殍殘殕殞殤
5D50 殪殫殰殲殮殳殷殼毆毋毓毟毬毫毳毯
5D60 麾氈氓气氛氤氣汞汕汢汪沂沍沚沁沛汾
5D70 汨汳沒沐泄泱泓沽泗泅泝沮沱沾

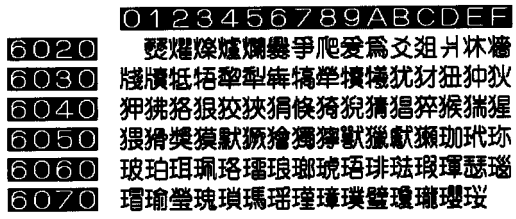

0 1 2 3 4 5 6 7 8 9 A B C D E F
6320 礦礪礬礫礮礪礫礴礵礷祀祠祗祟祚
6330 祕祓祺祿禊禋禑禧禳禪禮禱禹禺秉秕秧
6340 秬秡秣稈稍稘稙稠稟禀稱稻稾稷穃穗穉
6350 穎穜穢穡穟穠穡穽穿窈窗窕窖窘窟窠窣窿
6360 竄竅竇竄竊竅竏竑竓竕站竚竝竡娭
6370 娵媧嫗媯姒姤芣芭芮芻芵芷芸荔苺荼莞莧蓖

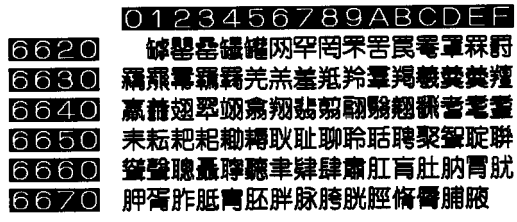
0 1 2 3 4 5 6 7 8 9 A B C D E F
5E20 沺泛泯泙泪洩衍洶洫洽洸洙洵洳洒
5E30 洌浣涓浤浚浹浙涎涕濤涅淹渕渊涵淇
5E40 淦涸淆淬淞淌淨淒淅淺淙淤淕淪淮渭
5E50 湮渟湲湓湟渾渣湫溏湍溍湔渰湣湝湞
5E60 滿渝游溂溪溘滉溷滓溽溯滄溲滔滕溏
5E70 溥滂溟潁漑灩灄滾滬滯漲滸漾漿滎漘

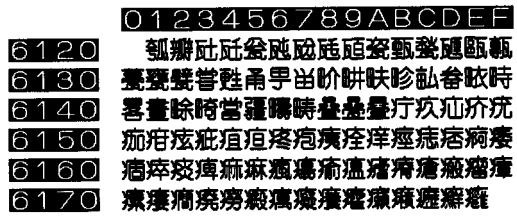

0 1 2 3 4 5 6 7 8 9 A B C D E F
6420 篁笄筍笋筌筅筵筥筴筧筰筱筳筴箧箸箝
6430 箘箭箍箜箚箘箱箴箏箸箾箯箵箶箺箻箴箼箽
6440 箾篩篥篦篭篳籠籩籟篠篦篷篳篥篶篷篥篭
6450 篋篝篳篶篭篾篝篮篾旗箙籐籐籟籤籤
6460 籥籬籵粁粃粤粭粢粡粫粨粳粲粱粮粹
6470 粽糀糅糇糘糜糢糲糲糲糲糲糲糺紆

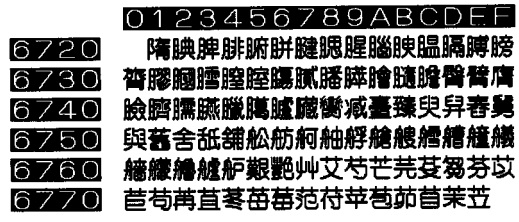
0 1 2 3 4 5 6 7 8 9 A B C D E F
5F20 漾漓滷澎溼漪滸澀澪潛潴潭澨瀘潘
5F30 澎澑濂潦澳澣澡澤澹濆濉濔濘濟濛濞濠
5F40 濱濮濛瀉瀋濺瀑瀇瀏瀘瀛瀚潲瀟瀝瀘瀕
5F50 瀾瀲瀲瀳瀴炒炯炯炬炸炳炮烟烋烝
5F60 烙焉烽焜焙煥煕熙熙熙煙煌煖煬熏燻燼
5F70 燹燔燊燗燹燽燬燧燵燼燹燿燦燼

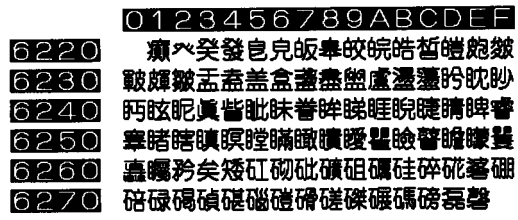
0 1 2 3 4 5 6 7 8 9 A B C D E F
6520 紂紜紕紊絅絋紮紲紿紵絆絳絖絎絲
6530 絨絮絏絣經綉條緩絽絛綺綮綣綵緶綽綹綞綻綮綠綧
6540 綫總綢綯緜綸綟綰緘緝緤緞緻緲緡縅縊縣縡縒縟縉縢縦縹縮縲縵縯縴縹縭縢縭縟縠縵縺縻
6550 繃縳縴縷縹縻縼繖繚繕繪繰繾繽繻繿纁纆纇缶
6560 纉纊纍纏纎纑纖纜缸缺
6570 罅罌罍罎罐网罕罔罘罟罠罨罩罥罰

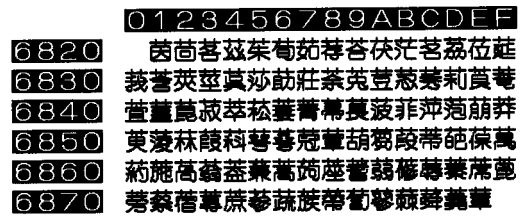

0 1 2 3 4 5 6 7 8 9 A B C D E F
6020 翹耀燦燼爛爨爭爬爰爲爻爼爿牀牆
6030 牋牘牴牾犂犁犇犒犖犢犧犹犲狃狆狄
6040 狎狒狢狠狡狹狷倏猗猊猜猖猝猴猯猩
6050 猥猾獎獏默獗獪獨獰獱獻獼珈玳珎玻
6060 珀珇珮珞璢琅瑯琥珶琲琺瑯琿瑟瑙瑁
6070 瑤瑜瑩瑰瑣瑪瑶瑾璋璞璧瓊瓏瓔珱

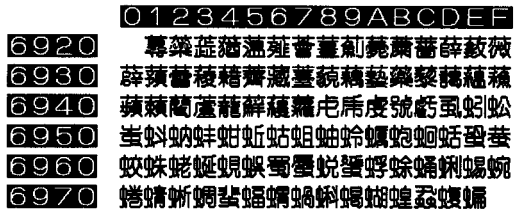

0 1 2 3 4 5 6 7 8 9 A B C D E F
6620 罅罌罍罎罐冏冖冏冓冥冐冕冤冪罫罰
6630 羈羆羃羈羇羌羔羞羝羚羣羯羲羹羮羶羸
6640 羹翀翅翊翌翎翔翡翦翩翳翹翻翼翽翾翿
6650 耒耘耙耜耡耨耦耻耽耿聊聆聒聘聚聟聢聨
6660 聳聲聰聶聹聽聿肄肆肅肛肓肚肭冐肬
6670 胛胥胙胝胄胚胖脉胯胱脞脬脩脣脨脮腋


0 1 2 3 4 5 6 7 8 9 A B C D E F
6120 瓠瓣瓧瓩瓮瓯瓱瓲瓶瓷甄甖甗甕甙甜
6130 甝甦甥甯甦甬甲甴甶畎畔畖畛畚畝時
6140 畧畫畯畴當疆疇畴畳畳畳疔疚疝疥疣
6150 痂疳痃疵疽疸疼疱痍痊痒痙痣痞痾痿
6160 痼瘁瘉瘋瘍瘐瘑瘟瘠瘡瘢瘤瘴瘵瘸瘻瘼
6170 瘽瘿癇癈癆癋癘癙癜癠癡癢癤癧癨癩癬癭


0 1 2 3 4 5 6 7 8 9 A B C D E F
6720 隋隗脾脏脮脡脛腿腥腦腴臆膈膊膀
6730 膂膠膕膤膣腟膕膩膰膵膾膸臆臀膂膺膚
6740 臉臍臑臙臈臈臚臓臘臠臧臺臻臾舁舂舅
6750 與舊舍舐舖舩舫舸舳艀艙艘艚艟艤艦艪
6760 艫艱艶艸艾芍芒芫芟芬芯芳芸芽芷芸荀荅
6770 荐荑荒荳荵荸荻荼莅莇莊茣莎莇莓莖莘莚莨莩


0 1 2 3 4 5 6 7 8 9 A B C D E F
6220 癨癴癸發皂皃皈皋皎皖皓皙皤皦皫皰
6230 皸皹皺盂盍盖盞盡盤盥盧盪瀘盼盻眇
6240 眈眩眛眞眥眦眭眸睚睛睥睨睫睹睺睽睾瞀
6250 瞍瞎瞋瞑瞠瞞瞰瞶瞹瞿瞼瞽瞿瞻矇矍矐
6260 矗矚矜矣矮矼砌砒礦砠碼硅碎硼碁硼
6270 碚碌碣碵碪碯磑磆磋磔碾碼磅磊磬


0 1 2 3 4 5 6 7 8 9 A B C D E F
6820 茵茴茖茲茱荀茹荐荅茯茫茗荔荈莊
6830 莪莟莢莖莘莞莚莨莵莽莠莉莧莓
6840 莶莸莧菔菘菉萋菁菷萇菠菲萍萓萠莽葅
6850 葑葎葭葆葯葦葷葫葱葚葙葆葖葥萬
6860 葯葙葛葝葢葷葺蒐蒭蒟蒻蒹蒿蒺蓆蓊蓼蔕蔓
6870 蔘蔡蔕蔔蔗蔘蔬蔟蔕蔔蔀蔵蔣蔦蔯蔓蔺蕈


0 1 2 3 4 5 6 7 8 9 A B C D E F
6920
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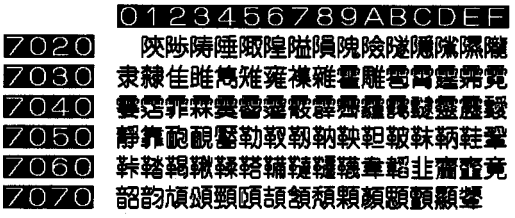
6940
6950
6960
6970

0 1 2 3 4 5 6 7 8 9 A B C D E F
6F20
6F30
6F40
6F50
6F60
6F70

0 1 2 3 4 5 6 7 8 9 A B C D E F
6A20
6A30
6A40
6A50
6A60
6A70


0 1 2 3 4 5 6 7 8 9 A B C D E F
7020
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0 1 2 3 4 5 6 7 8 9 A B C D E F
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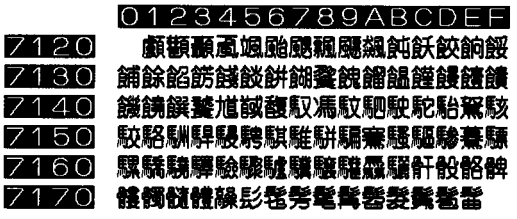
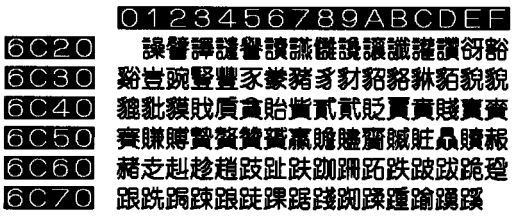
6B50
6B60
6B70


0 1 2 3 4 5 6 7 8 9 A B C D E F
7120
7130
7140
7150
7160
7170


0 1 2 3 4 5 6 7 8 9 A B C D E F
6C20
6C30
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6C50
6C60
6C70

0 1 2 3 4 5 6 7 8 9 A B C D E F
7220
7230
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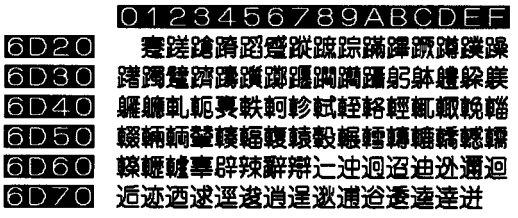
7260
7270


0 1 2 3 4 5 6 7 8 9 A B C D E F
6D20
6D30
6D40
6D50
6D60
6D70

0 1 2 3 4 5 6 7 8 9 A B C D E F
7320
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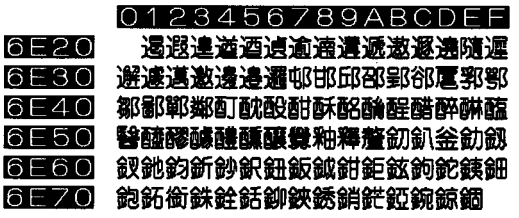
7370


0 1 2 3 4 5 6 7 8 9 A B C D E F
6E20
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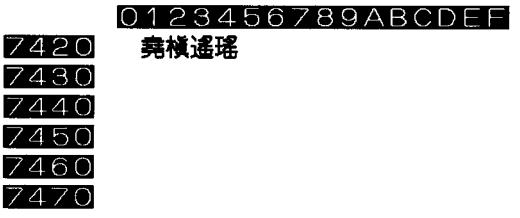
6E40
6E50
6E60
6E70


0 1 2 3 4 5 6 7 8 9 A B C D E F
7420
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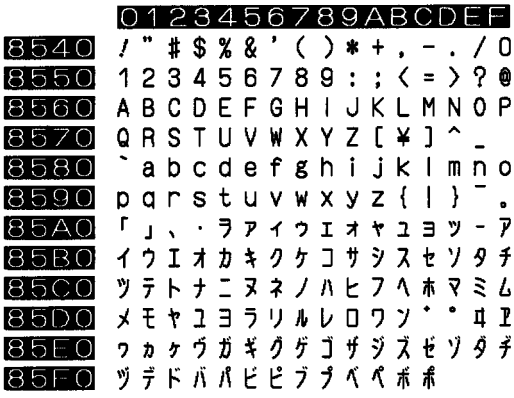
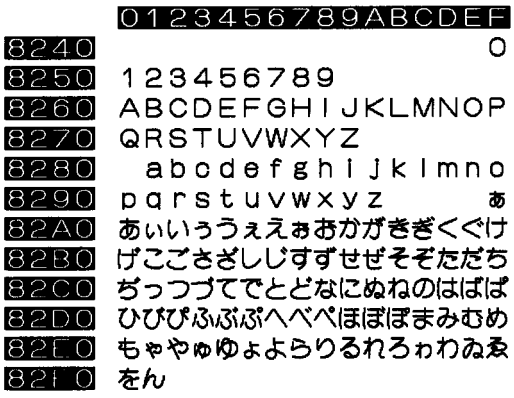
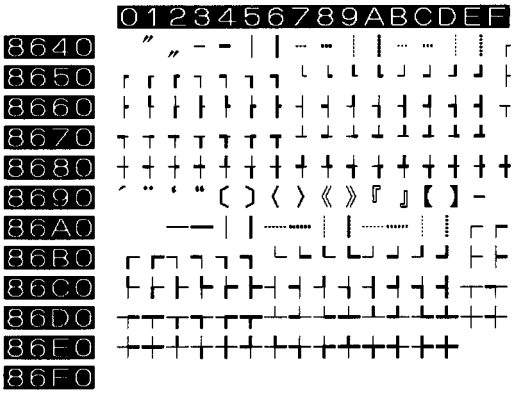
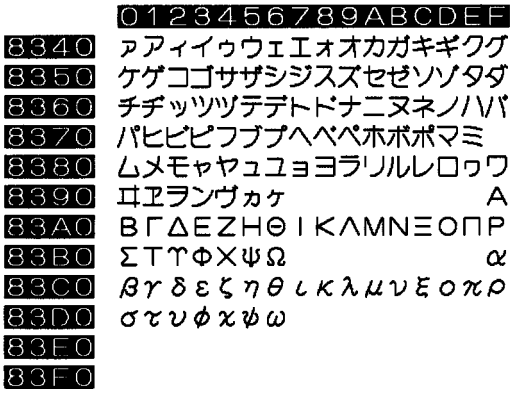
7460
7470

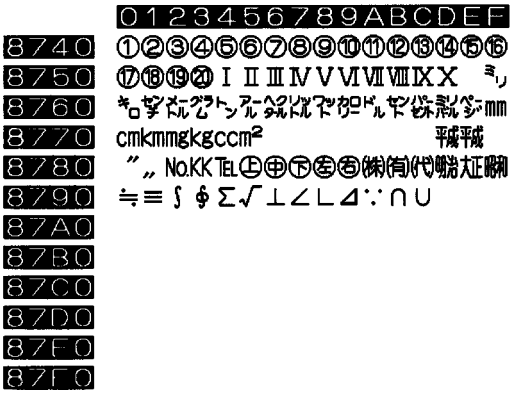
4-2-2) SHIFT-JIS Code Type











	0 1 2 3 4 5 6 7 8 9 A B C D E F
8840	
8850	
8860	
8870	
8880	
8890	亜
88A0	唖娃阿哀愛挨姶逢葵茜穐悪握渥旭葦
88B0	芦鯵梓圧斡扱宛姐虻飴絢綾鮎或粟袷
88C0	安庵按暗案闇鞍杏以伊位依偉囲夷委
88D0	威尉惟意慰易椅為畏異移維緯胃萎衣
88E0	謂違遺医井亥域育郁磯一壱溢逸稲茨
88F0	芋鰯允印咽員因姻引飲淫胤蔭

	0 1 2 3 4 5 6 7 8 9 A B C D E F
8C40	掘窟沓靴轡窪熊隈粂栗繰桑鍬勲君薫
8C50	訓群軍郡卦袈祁係傾刑兄啓圭珪型契
8C60	形径恵慶慧憩掲携敬景桂渓畦稽系経
8C70	継繋罫茎荊蛍計詣警軽頚鶏芸迎鯨
8C80	劇戟撃激隙桁傑欠決潔穴結血訣月件
8C90	倹倦健兼券剣喧圏堅嫌建憲懸拳捲検
8CA0	権牽犬献研硯絹県肩見謙賢軒遣鍵険
8CB0	顕験鹸元原厳幻弦減源玄現絃舷言諺
8CC0	限乎個古呼固姑孤己庫弧戸故枯湖狐
8CD0	糊袴股胡蔭虎誇跨鈷雇顧鼓五互伍午
8CE0	呉吾娯後御悟梧檎瑚碁語誤護醐乞鯉
8CF0	交佼侯候倖光公功効勾厚口向

	0 1 2 3 4 5 6 7 8 9 A B C D E F
8940	院陰隠韻吋右宇烏羽迂雨卯鵜窺丑碓
8950	臼渦嘘唄欝蔚鰻姥厩浦瓜閏噂云運雲
8960	荏餌叡営嬰影映曳栄永泳洩瑛盈穎頴
8970	英衛詠鋭液疫益駅悦謁越閲榎厭円
8980	園堰奄宴延怨掩援沿演炎焔煙燕猿縁
8990	艶苑薗遠鉛鴛塩於汚甥凹央奥往応押
89A0	旺横欧殴王翁襖鴬鴎黄岡沖荻億屋憶
89B0	臆桶牡乙俺卸恩温穏音下化仮何伽価
89C0	佳加可嘉夏嫁家寡科暇果架歌河火珂
89D0	禍禾稼箇花苛茄荷華菓蝦課嘩貨迦過
89E0	霞蚊俄峨我牙画臥芽蛾賀雅餓駕介会
89F0	解回塊壊廻快怪悔恢懐戒拐改

	0 1 2 3 4 5 6 7 8 9 A B C D E F
8D40	后喉坑垢好孔孝宏工巧巷幸広庚康弘
8D50	恒慌抗拘控攻昂晃更杭校梗構江洪浩
8D60	港溝甲皇硬稿糠紅紘絞綱耕考肯肱腔
8D70	膏航荒行衡講貢購郊酵鉱砿鋼閤降
8D80	項香高鴻剛劫号合壕拷濠豪轟麹克刻
8D90	告国穀酷鵠黒獄漉腰甑忽惚骨狛込此
8DA0	頃今困坤墾婚恨懇昏昆根梱混痕紺艮
8DB0	魂些佐叉唆嵯左差査沙瑳砂詐鎖裟坐
8DC0	座挫債催再最哉塞妻宰彩才採栽歳済
8DD0	災采犀砕砦祭斎細菜裁載際剤在材罪
8DE0	財冴坂阪堺榊肴咲崎埼碕鷺作削咋搾
8DF0	昨朔柵窄策索錯桜鮭笹匙冊刷

	0 1 2 3 4 5 6 7 8 9 A B C D E F
8A40	魁晦械海灰界皆絵芥蟹開階貝凱劾外
8A50	咳害崖慨概涯碍蓋街該鎧骸浬馨蛙垣
8A60	柿蛎鈎劃嚇各廓拡撹格核殻獲確穫覚
8A70	角赫較郭閣隔革学岳楽額顎掛笠樫
8A80	橿梶鰹潟割喝恰括活渇滑葛褐轄且鰹
8A90	叶椛樺鞄株兜竃蒲釜鎌噛鴨栢茅萱粥
8AA0	刈苅瓦乾侃冠寒刊勘勧巻喚堪姦完官
8AB0	寛干幹患感慣憾換敢柑桓棺款歓汗漢
8AC0	澗潅環甘監看竿管簡緩缶翰肝艦観貫
8AD0	諌貫還鑑間閑関陥韓館舘丸含岸巌玩
8AE0	癌眼岩翫贋雁頑顔願企伎危喜器基奇
8AF0	嬉寄岐希幾忌揮机旗既期棋棄

	0 1 2 3 4 5 6 7 8 9 A B C D E F
8E40	察拶撮擦札殺薩雑皐鯖捌錆鮫皿晒三
8E50	傘参山惨撒散桟燦珊産算纂蚕讃賛酸
8E60	餐斬暫残仕仔伺使刺司史嗣四士始姉
8E70	姿子屍市師志思指支孜斯施旨枝止
8E80	死氏獅祉私糸紙紫肢脂至視詞詩試誌
8E90	諮資賜雌飼歯事似侍児字寺慈持時次
8EA0	滋治爾璽痔磁示而耳自蒔辞汐鹿式識
8EB0	鴫竺軸宍雫七叱執失嫉室悉湿漆疾質
8EC0	実蔀篠偲柴芝屡蕊縞舎写射捨赦斜煮
8ED0	社紗者謝車遮蛇邪借勺尺杓灼爵酌釈
8EE0	錫若寂弱惹主取守手朱殊狩珠種腫趣
8EF0	酒首儒受呪寿授樹綬需囚収周

	0 1 2 3 4 5 6 7 8 9 A B C D E F
8B40	機帰毅気汽畿祈季稀紀徽規記貴起軌
8B50	輝飢騎鬼亀偽儀妓宜戯技擬欺犠疑祇
8B60	義蟻誼議掬菊鞠吉吃喫桔橘詰砧杵黍
8B70	却客脚虐逆丘久仇休及吸宮弓急救
8B80	朽求汲泣灸球究窮笈級糾給旧牛去居
8B90	巨拒拠挙渠虚許距鋸漁凶叫狂峡挟狭
8BA0	恐恭挟教橋況狂狭矯胸脅興蕎郷鏡響
8BB0	饗驚仰凝尭暁業局曲極玉桐粁僅勤均
8BC0	巾錦斤欣欽琴禁禽筋緊芹菌衿襟謹近
8BD0	金吟銀九倶句区狗玖矩苦躯駆駈駒具
8BE0	愚虞喰空偶寓遇隅串櫛釧屑屈
8BF0	

	0 1 2 3 4 5 6 7 8 9 A B C D E F
8F40	宗就州修愁拾洲秀秋終繍習臭舟蒐衆
8F50	襲讐蹴輯週酋酬集醜什住充十従戎柔
8F60	汁渋獣縦重銃叔夙宿淑祝縮粛塾熟出
8F70	術述俊峻春瞬竣舜駿准循旬楯殉淳
8F80	準潤盾純巡遵醇順処初所暑曙渚庶緒
8F90	署書薯藷諸助叙女序徐恕鋤除傷償勝
8FA0	匠升召哨商唱嘗奨妾娼宵将小少尚庄
8FB0	床廠彰承抄招掌捷昇昌昭晶松梢樟樵
8FC0	沼消渉湘焼焦照症省硝礁祥称章笑粧
8FD0	紹肖菖蒋蕉衝裳訟証詔詳彰象賞醤鉦鐘
8FE0	鐘障鞘上丈丞乗冗剰城場壌嬢常情擾
8FF0	条杖浄状畳穣蒸譲醸錠嘱埴飾

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
9040	拭槌殖燭織職色触食蝕辱尻伸信侵唇															
9050	娠寝審心慎振新晋森榛浸深申疹真神															
9060	秦紳臣芯薪親診身辛進針震人仁刃塵															
9070	壬尋甚尽腎訊迅陣靭笥諏須酢図厨															
9080	逗吹垂帥推水炊睡粋翠衰遂酔錐錘随															
9090	瑞髄崇嵩数枢趨雛据杉椙菅頗雀裾澄															
90A0	摺寸世瀬畝是凄制勢姓征性成政整星															
90B0	晴棲栖正清牲生盛精聖声製西誠誓請															
90C0	逝醒青静斉税脆隻席惜戚斥昔析石積															
90D0	籍績脊責赤跡蹟碩切拙接摂折設窃節															
90E0	説雪絶舌蝉仙先千占宣専尖川戦扇撰															
90F0	栓栴泉浅洗染潜煎煽旋穿箭線															

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
9440	如尿韮任妊忍認濡禰祢寧葱猫熱年念															
9450	捻撚燃粘乃廼之埜嚢悩濃納能脳膿農															
9460	覗蚤巴把播覇杷波派琶破婆罵芭馬俳															
9470	廃拝排敗杯盃牌背肺輩配倍培媒梅															
9480	楳煤狽買売賠陪這蝿秤矧萩伯剥博拍															
9490	柏泊白箔粕舶薄迫曝漠爆縛莫駁麦函															
94A0	箱硲箸肇筈櫨幡肌畑畠八鉢溌発醗髪															
94B0	伐罰抜筏閥鳩噺塙蛤隼伴判半反叛帆															
94C0	搬斑板氾汎版犯班畔繁般藩販範釆煩															
94D0	頒飯挽晩番盤磐蕃蛮匪卑否妃庇彼悲															
94E0	扉批披斐比泌疲皮碑秘緋罷肥被誹費															
94F0	避非飛樋簸備尾微枇毘琵眉美															

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
9140	繊羨腺舛船薦詮賎践選遷銭銑閃鮮前															
9150	善漸然全禅繕膳糎噌塑岨措曾曽楚狙															
9160	疏踈礎祖租粗素組蘇訴阻遡鼠僧創双															
9170	叢倉喪壮奏爽宋層匝惣想捜掃挿掻															
9180	操早曹巣槍槽漕燥争痩相窓糟総綜聡															
9190	草荘葬蒼藻装走送遭鎗霜騒像増憎臓															
91A0	蔵贈造促側則即息捉束測足速俗属賊															
91B0	族続卒袖其揃存孫尊損村遜他多太汰															
91C0	詑唾堕妥惰打柁舵楕陀駄騨体堆対耐															
91D0	岱帯待怠態戴替泰滞胎腿苔袋貸退逮															
91E0	隊黛鯛代台大第醍題鷹滝瀧卓啄宅托															
91F0	択拓沢濯琢託鐸濁諾茸凧蛸只															

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
9540	鼻柊稗匹疋髭彦膝菱肘弼必畢筆逼桧															
9550	姫媛紐百謬俵彪標氷漂瓢票表評豹廟															
9560	描病秒苗錨鋲蒜蛭鰭品彬斌浜瀕貧賓															
9570	頻敏瓶不付埠夫婦富冨布府怖扶敷															
9580	斧普浮父符腐膚芙譜負賦赴阜附侮撫															
9590	武舞葡蕪部封楓風葺蕗伏副復幅服福															
95A0	腹複覆淵弗払沸仏物鮒分吻噴墳憤扮															
95B0	焚奮粉糞紛雰文聞丙併兵塀幣平弊柄															
95C0	並蔽閉陛米頁僻壁癖碧別瞥蔑箆偏変															
95D0	片篇編辺返遍便勉娩弁鞭保舗鋪圃捕															
95E0	歩甫補輔穂募墓慕戊暮母簿菩倣俸包															
95F0	呆報奉宝峰峯崩庖抱捧放方朋															

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
9240	叩但達辰奪脱巽竪辿棚谷狸鱈樽誰丹															
9250	単嘆坦担探旦歎淡湛炭短端箪綻耽胆															
9260	蛋誕鍛団壇弾断暖檀段男談値知地弛															
9270	恥智池痴稚置致蜘遅馳築畜竹筑蓄															
9280	逐秩窒茶嫡着中仲宙忠抽昼柱注虫衷															
9290	註酎鋳駐樗瀦猪苧著貯丁兆凋喋寵帖															
92A0	帳庁弔張彫徴懲挑暢朝潮牒町眺聴脹															
92B0	腸蝶調諜超跳銚長頂鳥勅捗直朕沈珍															
92C0	賃鎮陳津墜椎槌追鎚痛通塚栂掴槻佃															
92D0	漬柘辻蔦綴鍔椿潰坪壺嬬紬爪吊釣鶴															
92E0	亭低停偵剃貞呈堤定帝底庭廷弟悌抵															
92F0	挺提梯汀碇禎程締艇訂諦蹄逓															

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
9640	法泡烹砲縫胞芳萌蓬蜂褒訪豊邦鋒飽															
9650	鳳鵬乏亡傍剖坊妨帽忘忙房暴望某棒															
9660	冒紡肪膨謀貌貿鉾防吠頬北僕卜墨撲															
9670	朴牧睦穆釦勃没殆堀幌奔本翻凡盆															
9680	摩磨魔麻埋妹昧枚毎哩槙幕膜枕鮪柾															
9690	鱒桝亦俣又抹末沫迄侭繭麿万慢満漫															
96A0	蔓味未魅巳箕岬密蜜湊蓑稔脈妙粍民															
96B0	眠務夢無牟矛霧鵡椋婿娘冥名命明盟															
96C0	迷銘鳴姪牝滅免棉綿緬面麺摸模茂妄															
96D0	孟毛猛盲網耗蒙儲木黙目杢勿餅尤戻															
96E0	籾貰問悶紋門匁也冶夜爺耶野弥矢厄															
96F0	役約薬訳躍靖柳薮鑓愉愈油癒															

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
9840	邸鄭釘鼎泥摘擢敵滴的笛適鏑溺哲徹															
9850	撤轍迭鉄典填天展店添纏甜貼転顛点															
9860	伝殿澱田電兎吐堵塗妬屠徒斗杜渡登															
9870	菟賭途都鍍砥砺努度土奴怒倒党冬															
9880	凍刀唐塔塘套宕島嶋悼投搭東桃梼棟															
9890	盗淘湯涛灯燈当痘祷等答筒糖統到董															
98A0	蕩藤討謄豆踏逃透鐙陶頭騰闘働動同															
98B0	堂導憧撞洞瞳童胴萄道銅峠鴇匿得徳															
98C0	涜特督禿篤毒独読栃橡凸突椴届鳶苫															
98D0	寅酉瀞噸屯惇敦沌豚遁頓呑曇鈍奈那															
98E0	内乍凪薙謎灘捺鍋楢馴縄畷南楠軟難															
98F0	汝二尼弐迩匂賑肉虹廿日乳入															

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
9740	諭輸唯佑優勇友宥幽悠憂揖有柚湧涌															
9750	猶猷由祐裕誘遊邑郵雄融夕予余与誉															
9760	輿預傭幼妖容庸揚揺擁曜楊様洋溶熔															
9770	用窯羊耀葉蓉要謡踊遥陽養慾抑欲															
9780	沃浴翌翼淀羅螺裸来莱頼雷洛絡落酪															
9790	乱卵嵐欄濫藍蘭覧利吏履李梨理璃痢															
97A0	裏裡里離陸律率立葎掠略劉流溜琉留															
97B0	硫粒隆竜龍侶慮旅虜了亮僚両凌寮料															
97C0	梁涼猟療瞭稜糧良諒遼量陵領力緑倫															
97D0	厘林淋燐琳臨輪隣鱗麟瑠塁涙累類令															
97E0	伶例冷励嶺怜玲礼苓鈴隷零霊麗齢暦															
97F0	歴列劣烈裂廉恋憐漣煉簾練聯															

	0 1 2 3 4 5 6 7 8 9 A B C D E F
9840	蓮連錬呂魯櫓炉賂路露労婁廊弄朗楼
9850	榔浪漏牢狼篭老聾蝋郎六麓禄肋録論
9860	倭和話歪賄脇惑枠鷲亙亘鰐詫藁蕨椀
9870	湾碗腕
9880	
9890	弋
98A0	丐丕个丱丶并丿乂乖乘亂亅豫事舒弍
98B0	于亞亟亠亢京亳亶从仍仄仆仂仗仞仭
98C0	仟价伉佚估佛佝佗佇佶侈侏侘佻佩佰
98D0	侑佯來侖儘俔俟俎俘俛俑俚俐俤俥倚
98E0	倨倔倪倥倅伜俶倡倩倬俾俯們倆偃假
98F0	會偕偐偈做偖偬偸傀傚傅傴傲

	0 1 2 3 4 5 6 7 8 9 A B C D E F
9C40	廖廣廝廚廬廢廡廨廩廬廱廳廰廴廸廾
9C50	弃弉彝彜弋弍弖弩弭弸彁彈彌彎弯弔
9C60	彖彗彙彡彭彳彷徃徂彿徊很徑徇従徙
9C70	徘徠徨徭徼忖忻忤忸忱忝悳忿怡恠
9C80	怙怐怩怎怱怛怕怫怦怏怺怚怊怜恊恰
9C90	恔恢恍恣恃恤恂恆恇恊恓悁悃悚悄
9CA0	悛悖悗悒悧悋惡悸惠惴悴悴悽惆悵惘
9CB0	慍愕愆惶愾愃愠惺愕愴惻慊愫慍愬愾
9CC0	愾愧慷愿慼憇憾憖懋懃懍憬憔憚憊
9CD0	憮慌慥慱慟憝憪憺憖憩憬憫憮憚憊懋
9CE0	懊懦懋懌應懷懈懃懆憺懋罹懌懍憾懴
9CF0	懺懴懿懽懼懾戀戈戉戍戌戔戛

	0 1 2 3 4 5 6 7 8 9 A B C D E F
9940	僉僊傳僂僖僞僥僭僣僮價僵儉儁儂儖
9950	儕儔儚儡儺儷儼儻儿兀兒兌兔兢竸兩
9960	兪兮冀冂冏冑冓冕冖冤冦冢冩冪
9970	冫冱冴冲冰況冽凅凉凛几處凩凭
9980	凰凵凾刄刋刔刎刧刪刮刳刹剏剋剌剞剔
9990	剪剴剩剳剿剽剿劍劒劔劘劣劼劾辨辦
99A0	劬劭劼劵勁勍勗勞勣勦勧勳勠勹勹
99B0	匆匈匍匐匏匕匚匣匯匱匳匸區卆卅
99C0	丗卉卍凖卞卩卮卯卻巻厂厖厠厦厥厮
99D0	厰厶參簒雙叟曼燮叮叨叭叺吁吽呀听
99E0	吭吠呪咊咏呵咎呟呱呷呰咒呻
99F0	咀啜哇哢哥啀啌唾啅唏啣啻啾喀喘

	0 1 2 3 4 5 6 7 8 9 A B C D E F
9A40	咫哂咤唸哿啀哥哦唏唔哽哮哨哢唹啜
9A50	喋啌喨喙喚喞啅喊喒喟喔喝喀喇喊喞
9A60	喧嘛喃嘶喋喱喘喩喻喇喨嗚嗅嗟嗄嗜嗤
9A70	嗔嘔嗷嘖嗾嗽嘛嗹噎噐営嘴嘶嘲嘸
9A80	噫噤噛噬噪噤噱噫噺噴噸噳嚊嚥嚮嚶
9A90	囁囃囀囘囮囹圀囿圄圉圈國
9AA0	國圍圓團圖嗇圜圦圷圸圻址坏坩垂
9AB0	埀垳埒垪垉垓垠垳垵垽垾埆埔埒埇堊
9AC0	埜埴堋堙堝塲堡塢塋塰毀塒堳塹墅墹墟墫
9AD0	墺墸墶壊壜壓壑壗壙壘壥壜壌壌壗
9AE0	壟壮壜壷壻壽夂夊夥夢夬夭夲夸夾
9AF0	奇奐奎奚奘奢奩奪奬奮奸奼奻奿

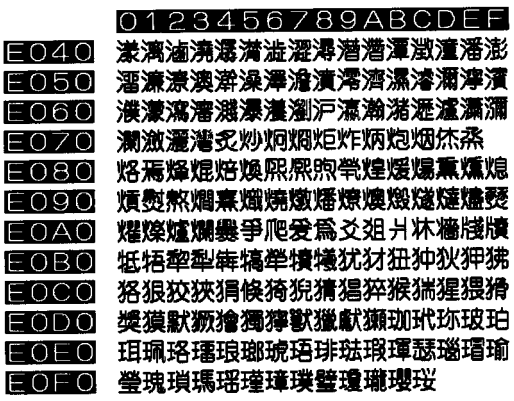
	0 1 2 3 4 5 6 7 8 9 A B C D E F
9B40	奸妁妝佞侫妣妲姆姨姜妍姙姚娥娟娑
9B50	娚婷婬婀娼婢婉娵娶婢婪媚媼媾嫋嫂媸媽
9B60	嫣嫗嫦嫩嫖嫺嫻嬌嬋嬖嬲嫐嬪嬶嬾孃
9B70	孀孅孑孕孚孛孥孩孰孳孵學斈孺宀
9B80	它宦宸寃寇寉寔寞寥實寧寠寤寮寶
9B90	寳尠將專對尓尠尢尨尸尹屁屆屎屓屐
9BA0	屏屍屬屮屹岌岑岔妛岫岻岶岼岷峅
9BB0	峡峪峩峱峭峺峻峪峯峰峴崁崇崋崙崘
9BC0	崟崔崢崚崙崘嵌嵎嵋嵬嵳嵶嶇嶄嶂
9BD0	嶢嶬嶮嶽嶷嶼嶺嶸嶹巉巍巓巒巖巛巫已
9BE0	巵帋帚帙帑帛帶帷幄幃幀幎幗幔幟幢
9BF0	幣幇幵并幺麼广庠廁廂廈廐廏

	0 1 2 3 4 5 6 7 8 9 A B C D E F
9C40	廖廣廝廚廬廢廡廨廩廬廱廳廰廴廸廾
9C50	弃弉彝彜弋弍弖弩弭弸彁彈彌彎弯弔
9C60	彖彗彙彡彭彳彷徃徂彿徊很徑徇従徙
9C70	徘徠徨徭徼忖忻忤忸忱忝悳忿怡恠
9C80	怙怐怩怎怱怛怕怫怦怏怺怚怊怜恊恰
9C90	恔恢恍恣恃恤恂恆恇恊恓悁悃悚悄
9CA0	悛悖悗悒悧悋惡悸惠惴悴悴悽惆悵惘
9CB0	慍愕愆惶愾愃愠惺愕愴惻慊愫慍愬愾
9CC0	愾愧慷愿慼憇憾憖懋懃懍憬憔憚憊
9CD0	憮慌慥慱慟憝憪憺憖憩憬憫憮憚憊懋
9CE0	懊懦懋懌應懷懈懃懆憺懋罹懌懍憾懴
9CF0	懺懴懿懽懼懾戀戈戉戍戌戔戛

	0 1 2 3 4 5 6 7 8 9 A B C D E F
9D40	戮戯戴戳戦戯戲扁扎扞扣扛扠扨扼抂
9D50	抉找抒抓抖拔抃抔拗拑抻拏拿拆擔拈
9D60	拜拌拊拂拇抛拉挌拮拱挧挂挈拯拵捐
9D70	挾捍搜捏掖掎掀掫捶掣掏掉掟掵捫
9D80	捩掾揩揀揆揣揉插揶揄搖搴搆搓搦搶
9D90	攝攙揜攩摠摲攪撕撓撥撩撈撼據擄擇
9DA0	擒擅擇撻擘擂擱擧舉擠擢抬擣擯攬擶
9DB0	擴擲擺攀擽攘攜攅攤攣攫攴攵收攸
9DC0	畋效敖敕敍敘敞敝敲數斂斃變斛斟斫
9DD0	斷旆旄旁旌旋旎旛旙无旡旱杲昊昃旻
9DE0	杳昵昶昴昜晏晄晉晁晞晝晤晧晨晟晢
9DF0	晰畢晧晟晢晨暘暝暹暉暾暼

	0 1 2 3 4 5 6 7 8 9 A B C D E F
9E40	曄曉曖曚曠昿曦曩曰曵曷朏朖朞朦朧
9E50	霸朮朿朶杁朸朷杆杞杠杙杣杤枉杰枩
9E60	杼杪杲杵杳枅枒枋枕枦枡枋枢枏杯
9E70	枥柩枹枩柾柧柘柎柙柒杽栩栃栄栲栳
9E80	栴栞栫栴栖栞栝栩桾桁桂桃桐桍桏桎梳
9E90	梵梧桭桔梏桷桙梮棘椢椋椁椄椌椌椥
9EA0	棧椶椶椒椄棗棣椥棹棠棯椨椪椚椣椡
9EB0	棆椌棓棚椹楫楔楾椽楮椹楹楹椶椀椰楝
9EC0	楝楹楪楹楾楂楨楬楷楛楪楹楙楣楡楪
9ED0	榧榠榍榠榜榕榴槞槨樂樛槿權槹槲
9EE0	槧橲樞槭樔槫樊樒櫁樣樓橾橡橦橈
9EF0	橇橢橙橦橈樸檎檠檐檑檠檣檗蘗檻

	0 1 2 3 4 5 6 7 8 9 A B C D E F
9F40	檗蘗檻櫃櫂檸檳檬櫧檣檪檸櫚櫪櫟檸
9F50	蘗櫺欅橲櫺欸欷盜欹飮歌欹歔歐歙
9F60	歔歛歟歡鹵歹殀殃殄殃殘殕殞殪殫
9F70	殫殰殱殱殳殷殼毆毋毓毟毬毫毳毯
9F80	麾氈氓气氛氤氣汞汕汢汪沂沍沚沁沛
9F90	汾汨汳没沐泄泱泓沽泗泅泝沮沱沾沺
9FA0	泛泯泙泪洟衍洶洫洽洸洙洵洳洒洌浣
9FB0	涓浤浚浹浙涎涕濤涅淹渕渊涵淇淦涸
9FC0	淆淬淞淌淨淒淅淺淙淤淕淫淪淮渭湮渮
9FD0	渙渢滉滓渣滬滔渻滃滂滁渤滥滬滔渚滿漁
9FE0	游滫溪溘滉溷滓溽溯滄溲滔滕溏溥滂
9FF0	滉漑漉灂灑滌滾滬滲漱滯漲滌

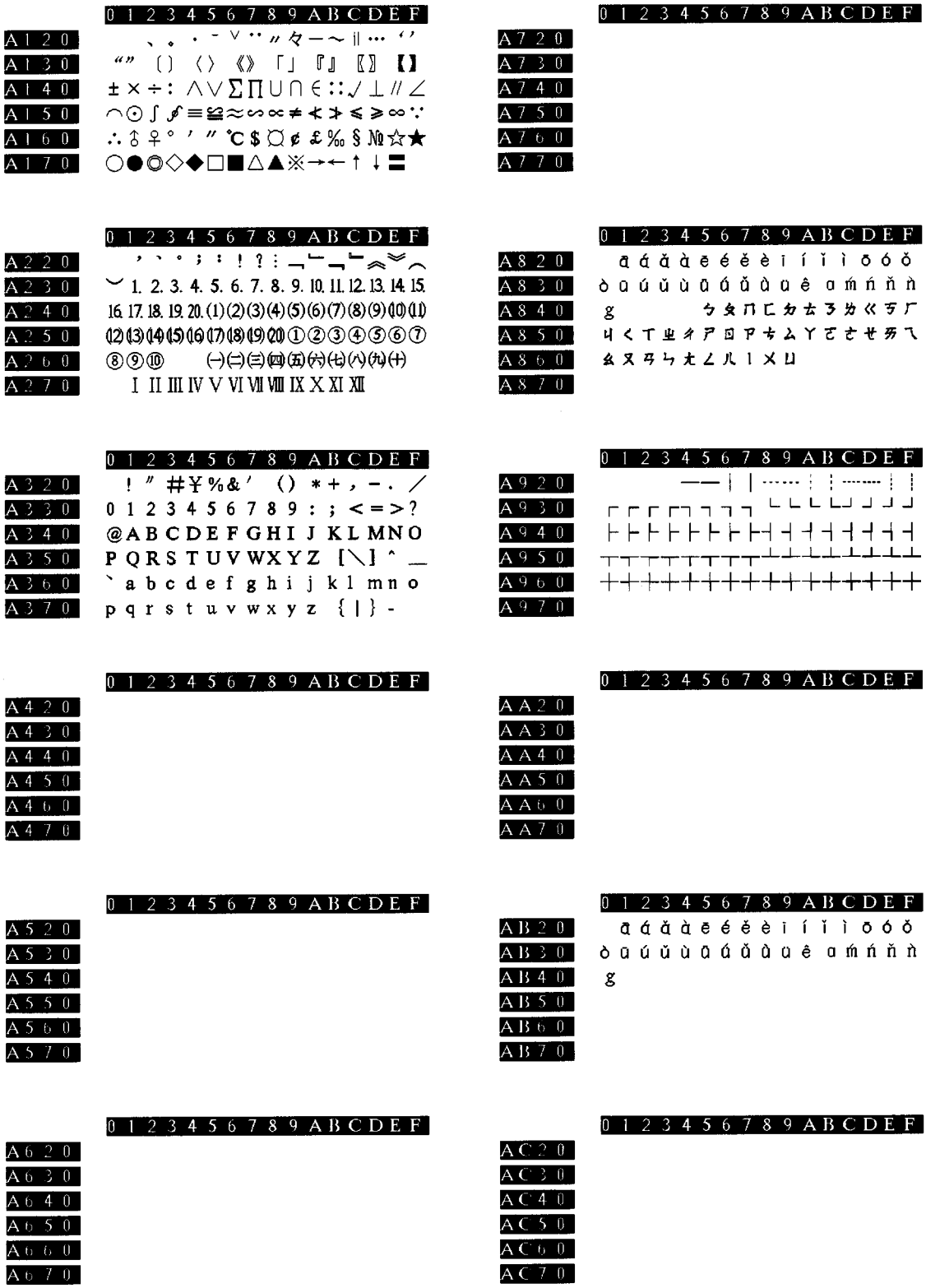

0 1 2 3 4 5 6 7 8 9 A B C D E F
E040 漾漓滷澇澍澼澎濺澣澱澶濮濱濡濤濫濬濤濺濼濾瀆瀉瀋瀏瀑瀕瀘瀝瀟瀧瀨瀦瀣瀹瀵瀾瀲灃灄灑灣灤灥灞灣灤灥灞灣灤灥灞

	0 1 2 3 4 5 6 7 8 9 A B C D E F
E840	錙錢錚錣錈錏鍆鍔鍜鍇鍉鍚鍍鏔鏕
E850	鏘鏜鏝鏢鏑鏍鏐鏤鐂鐈鐓鐔鐙鐦鐏
E860	鐠鐨鐫鐬鐵鐲鐳鐶鐷鐸鐺鐽鐿鑀鑁
E870	鑅鑈鑊鑌鑕鑛鑞鑢鑤門閂閆問閔閖閘閒
E880	閨閩閧閭閸閻閼閾閿闀闁闂闄闅闆闇
E890	闉闋闌闕阡阨阮阯陂陌陏陋陷陜陞陝
E8A0	陟陠陲陬隍隕隗險隧隩隮隰隴隶隸
E8B0	隹雎雋雉雍襍雜霍雕雚霅霈霊霑霒霓靄
E8C0	靆靈靜靚靛靣靦靨鞁鞄鞋鞏鞐鞜
E8D0	鞡鞢鞣鞨鞫鞬鞮鞱鞳鞴韃韄韅韋韜韭齏齑韲韵韻
E8E0	韞韠韮韯韰韱韲韴韷韸韺頁頇頊頍頎頒頖頜頞頠頫
E8F0	頤頧頨頩頫頬頮頯頰頲頳頴顇顋顑顒顓顔顕顚顜顟

	0 1 2 3 4 5 6 7 8 9 A B C D E F
E940	顠顡顢顣顤顦顩顪顫顬顭顮飣飥飩飫餂餇餈餑餔
E950	餘餚餜餞餤餠餬餮餽餾饂饉饅饇饈饍饑饒饗
E960	饘饟饕馗馘馥馭馮馼駁駄駅駆駈駋駑駓駔駗駘駙駜駡
E970	駱駲駸駹駽駾騁騏騅騆騊騋騌騐騑騖騠騤騧騭騮騵騶
E980	騸騺騻騼驂驁驃驄驆驈驊驌驍驎驏驔驖骭骯骳骸骾髀
E990	髏髑髓體髞髟髡髣髧髪髫髭髯髲髳髹髺髽髾鬁鬅鬆
E9A0	鬈鬉鬊鬌鬐鬒鬖鬗鬘鬙鬠鬣鬧鬨鬩鬪鬮鬯鬱鬲魄魅魍
E9B0	魎魑魘魚魛魢魬魯魴魵魸鮀鮁鮆鮌鮎鮑鮒鮓鮚鮞鮟鮠鮦鮨
E9C0	鮪鮭鮴鮵鮸鮿鯀鯄鯆鯇鯈鯉鯊鯏鯑鯒鯔鯕鯖鯗鯙鯠鯡
E9D0	鯢鯤鯧鯫鯰鯱鯲鯳鯵鯷鯸鯹鯺鯽鯿鰀鰂鰆鰉鰋鰐鰒鰕鰙
E9E0	鰟鰠鰢鰣鰤鰥鰦鰧鰨鰩鰪鰫鰭鰮鰯鰱鰲鰵鰶鰷鰺鰻鰼鰽
E9F0	鰾鰿鱀鱁鱄鱅鱇鱈鱉鱊鱎鱏鱐鱒鱓鱔鱕鱖鱘鱚鱜鱝鱞

	0 1 2 3 4 5 6 7 8 9 A B C D E F
EA40	鱠鱡鱢鱣鱤鱥鱦鱧鱨鱩鱪鱫鱬鱭鱮鱯鱰鱲鱳鱴鱵鱶鱷
EA50	鱸鱹鱺鱻鱼鱽鱾鱿鲀鲁鲂鲃鲄鲅鲆鲇鲈鲉鲊鲋鲌鲍鲎
EA60	鲏鲐鲑鲒鲓鲔鲕鲖鲗鲘鲙鲚鲛鲜鲝鲞鲟鲠鲡鲢鲣鲤
EA70	鲦鲧鲨鲩鲪鲫鲬鲭鲮鲯鲰鲱鲲鲳鲴鲵鲶鲷鲸鲹鲺鲻
EA80	鲼鲽鲾鲿鳀鳁鳂鳃鳄鳅鳆鳇鳈鳉鳊鳋鳌鳍鳎鳏鳐鳑
EA90	鳒鳓鳔鳕鳖鳗鳘鳙鳚鳛鳜鳝鳞鳟鳠鳡鳢鳣鳤鳥鳦
EAA0	鳧鳨鳩
EAB0	
EAC0	
EAD0	
EAE0	
EAF0	

4-3) Chinese Character Codes (Conforming to GB8312)



	0 1 2 3 4 5 6 7 8 9 A B C D E F
AD20	
AD30	
AD40	
AD50	
AD60	
AD70	

	0 1 2 3 4 5 6 7 8 9 A B C D E F
B320	场尝常长偿肠厂敞畅唱倡超抄钞朝
B330	嘲潮巢吵炒车扯撤掣彻澈郴臣辰尘晨
B340	忱沉陈趁衬撑称城橙成呈乘程惩澄诚
B350	承逞骋秤吃痴持匙池迟弛驰耻齿侈尺
B360	赤翅斥炽充冲虫崇宠抽酬畴踌稠愁筹
B370	仇绸瞅丑臭初出橱厨躇锄雏滁除楚

	0 1 2 3 4 5 6 7 8 9 A B C D E F
AE20	
AE30	
AE40	
AE50	
AE60	
AE70	

	0 1 2 3 4 5 6 7 8 9 A B C D E F
B420	础储矗搐触处揣川穿椽传船喘串疮
B430	窗幢床闯创吹炊捶锤垂春椿醇唇淳纯
B440	蠢戳绰疵茨磁雌辞慈瓷词此刺赐次聪
B450	葱囱匆从丛凑粗醋簇促蹿篡窜摧崔催
B460	脆瘁粹淬翠村存寸磋撮搓措挫错搭达
B470	答瘩打大呆歹傣戴带殆代贷袋待逮

	0 1 2 3 4 5 6 7 8 9 A B C D E F
AF20	
AF30	
AF40	
AF50	
AF60	
AF70	

	0 1 2 3 4 5 6 7 8 9 A B C D E F
B520	怠耽担丹单郸掸胆旦氮但惮淡诞弹
B530	蛋当挡党荡档刀捣蹈倒岛祷导到稻悼
B540	道盗德得的蹬灯登等瞪凳邓堤低滴迪
B550	敌笛狄涤翟嫡抵底地蒂第帝弟递缔颠
B560	掂滇碘点典靛垫电佃甸店惦奠淀殿碉
B570	叼雕凋刁掉吊钓调跌爹碟蝶迭谍叠

	0 1 2 3 4 5 6 7 8 9 A B C D E F
B020	啊阿埃挨哎唉哀皑癌蔼矮艾碍爱隘
B030	鞍氨安俺按暗岸胺案肮昂盎凹敖熬翱
B040	袄傲奥懊澳芭捌扒叭吧笆八疤巴拔跋
B050	靶把耙坝霸罢爸白柏百摆佰败拜稗斑
B060	班搬扳般颁板版扮拌伴瓣半办绊邦帮
B070	梆榜膀绑棒磅蚌镑傍谤苞胞包褒剥

	0 1 2 3 4 5 6 7 8 9 A B C D E F
B620	丁盯叮钉顶鼎锭定订丢东冬董懂动
B630	栋侗恫冻洞兜抖斗陡豆逗痘都督毒犊
B640	独读堵睹赌杜镀肚度渡妒端短锻段断
B650	缎堆兑队对墩吨蹲敦顿囤钝盾遁掇哆
B660	多夺垛躲朵跺舵剁惰堕蛾峨鹅俄额讹
B670	娥恶厄扼遏鄂饿恩而儿耳尔饵洱二

	0 1 2 3 4 5 6 7 8 9 A B C D E F
B120	薄雹保堡饱宝抱报暴豹鲍爆杯碑悲
B130	卑北辈背贝钡倍狈备惫焙被奔苯本笨
B140	崩绷甭泵蹦进逼鼻比鄙笔彼碧蓖蔽毕
B150	毙毖币庇痹闭敝弊必辟壁臂避陛鞭边
B160	编贬扁便变卞辨辩辫遍标彪膘表鳖憋
B170	别瘪彬斌濒滨宾摈兵冰柄丙秉饼炳

	0 1 2 3 4 5 6 7 8 9 A B C D E F
B720	贰发罚筏伐乏阀法珐藩帆番翻樊矾
B730	钒繁凡烦反返范贩犯饭泛坊芳方肪房
B740	防妨仿访纺放菲非啡飞肥匪诽吠肺废
B750	沸费芬酚吩氛分纷坟焚汾粉奋份忿愤
B760	粪丰封枫蜂峰锋风疯烽逢冯缝讽奉凤
B770	佛否夫敷肤孵扶拂辐幅氟符伏俘服

	0 1 2 3 4 5 6 7 8 9 A B C D E F
B220	病并玻菠播拨钵波博勃搏铂箔伯帛
B230	舶脖膊渤泊驳捕卜哺补埠不布步簿部
B240	怖擦猜裁材才财睬踩采彩菜蔡餐参蚕
B250	残惭惨灿苍舱仓沧藏操糙槽曹草厕策
B260	侧册测层蹭插叉茬茶查碴搽察岔差诧
B270	拆柴豺搀掺蝉馋谗缠铲产阐颤昌猖

	0 1 2 3 4 5 6 7 8 9 A B C D E F
B820	浮涪福袱弗甫抚辅俯釜斧脯腑府腐
B830	赴副覆赋复傅付阜父腹负富讣附妇缚
B840	咐噶嘎该改概钙盖溉干甘杆柑竿肝赶
B850	感秆敢赣冈刚钢缸肛纲岗港杠篙皋高
B860	膏羔糕搞镐稿告哥歌搁戈鸽胳疙割革
B870	葛格蛤阁隔铬个各给根跟耕更庚羹

	0 1 2 3 4 5 6 7 8 9 A B C D E F
B920	埂耿梗工攻功恭龚供躬公宫弓巩汞
B930	拱贡共钩勾沟苟狗垢构购够辜菇咕箍
B940	估沽孤姑鼓古蛊骨谷股故顾固雇刮瓜
B950	剐寡挂褂乖拐怪棺关官冠观管馆罐惯
B960	灌贯光广逛瑰规圭硅归龟闺轨鬼诡癸
B970	桂柜跪贵刽辊滚棍锅郭国果裹过哈

	0 1 2 3 4 5 6 7 8 9 A B C D E F
BF20	俊竣浚郡骏喀咖卡咯开揩楷凯慨刊
BF30	堪勘坎砍看康慷糠扛抗亢炕考拷烤靠
BF40	坷苛柯棵磕颗科壳咳可渴克刻客课肯
BF50	啃垦恳坑吭空恐孔控抠口扣寇枯哭窟
BF60	苦酷库裤夸垮挎跨胯块筷侩快宽款匡
BF70	筐狂框矿眶旷况亏盔岿窥葵奎魁傀

	0 1 2 3 4 5 6 7 8 9 A B C D E F
BA20	骸孩海氦亥害骇酣憨邯韩含涵寒函
BA30	喊罕翰撼捍旱憾悍焊汗汉夯杭航壕嚎
BA40	豪毫郝好耗号浩呵喝荷菏核禾和何合
BA50	盒貉阂河涸赫褐鹤贺嘿黑痕很狠恨哼
BA60	亨横衡恒轰哄烘虹鸿洪宏弘红喉侯猴
BA70	吼厚候后呼乎忽瑚壶葫胡蝴狐糊湖

	0 1 2 3 4 5 6 7 8 9 A B C D E F
C020	馈愧溃坤昆捆困括扩廓阔垃拉喇蜡
C030	腊辣啦莱来赖蓝婪栏拦篮阑兰澜谰揽
C040	览懒缆烂滥琅榔狼廊郎朗浪捞劳牢老
C050	佬姥酪烙涝勒乐雷镭蕾磊累儡垒擂肋
C060	类泪棱楞冷厘梨犁黎篱狸离漓理李里
C070	鲤礼莉荔吏栗丽厉励砾历利傈例俐

	0 1 2 3 4 5 6 7 8 9 A B C D E F
BB20	弧虎唬护互沪户花哗华猾滑画划化
BB30	话槐徊怀淮坏欢环桓还缓换患唤痪豢
BB40	焕涣宦幻荒慌黄磺蝗簧皇凰惶煌晃幌
BB50	恍谎灰挥辉徽恢蛔回毁悔慧卉惠晦贿
BB60	秽会烩汇讳诲绘荤昏婚魂浑混豁活伙
BB70	火获或惑霍货祸击圾基机畸稽积箕

	0 1 2 3 4 5 6 7 8 9 A B C D E F
C120	瘌立粒沥隶力璃哩俩联莲连镰廉怜
C130	涟帘敛脸链恋炼练粮凉梁粱良两辆量
C140	晾亮谅撩聊僚疗燎寥辽潦了撂镣廖料
C150	列裂烈劣猎琳林磷霖临邻鳞淋凛赁吝
C160	拎玲菱零龄铃伶羚凌灵陵岭领另令溜
C170	琉榴硫馏留刘瘤流柳六龙聋咙笼窿

	0 1 2 3 4 5 6 7 8 9 A B C D E F
BC20	肌饥迹激讥鸡姬绩缉吉极棘辑籍集
BC30	及急疾汲即嫉级挤几脊己蓟技冀季伎
BC40	祭剂悸济寄寂计记既忌际妓继纪嘉枷
BC50	夹佳家加荚颊贾甲钾假稼价架驾嫁歼
BC60	监坚尖笺间煎兼肩艰奸缄茧检柬碱硷
BC70	拣捡简俭剪减荐槛鉴践贱见键箭件

	0 1 2 3 4 5 6 7 8 9 A B C D E F
C220	隆垄拢陇楼娄搂篓漏陋芦卢颅庐炉
C230	掳卤虏鲁麓碌露路赂鹿潞禄录陆戮驴
C240	吕铝侣旅履屡缕虑氯律率滤绿峦挛孪
C250	滦卵乱掠略抡轮伦仑沦纶论萝螺罗逻
C260	锣箩骡裸落洛骆络妈麻玛码蚂马骂嘛
C270	吗埋买麦卖迈脉瞒馒蛮满蔓曼慢漫

	0 1 2 3 4 5 6 7 8 9 A B C D E F
BD20	键舰剑饯渐溅涧建僵姜将浆江疆蒋
BD30	桨奖讲匠酱降蕉椒礁焦胶交郊浇骄娇
BD40	嚼搅铰矫侥脚狡角饺缴绞剿教酵轿较
BD50	叫窖揭接皆秸街阶截劫节桔杰捷睫竭
BD60	洁结解姐戒藉芥界借介疥诫届巾筋斤
BD70	金今津襟紧锦仅谨进靳晋禁近烬浸

	0 1 2 3 4 5 6 7 8 9 A B C D E F
C320	谩芒茫盲氓忙莽猫茅锚毛矛铆卯茂
C330	冒帽貌贸么玫枚梅酶霉煤没眉媒镁每
C340	美昧寐妹媚门闷们萌蒙檬盟锰猛梦孟
C350	眯醚靡糜迷谜弥米秘觅泌蜜密幂棉眠
C360	绵冕免勉娩缅面苗描瞄藐秒渺庙妙蔑
C370	灭民抿皿敏悯闽明螟鸣铭名命谬摸

	0 1 2 3 4 5 6 7 8 9 A B C D E F
BE20	尽劲荆兢茎睛晶鲸京惊精粳经井警
BE30	景颈静境敬镜径痉靖竟竞净炯窘揪究
BE40	纠玖韭久灸九酒厩救旧臼舅咎就疚鞠
BE50	拘狙疽居驹菊局咀矩举沮聚拒据巨具
BE60	距踞锯俱句惧炬剧捐鹃娟倦眷卷绢撅
BE70	攫抉掘倔爵觉决诀绝均菌钧军君峻

	0 1 2 3 4 5 6 7 8 9 A B C D E F
C420	幕慕模膜磨摩魔抹末莫墨默沫漠寞
C430	陌谋牟某拇牡亩姆母墓暮幕募慕木目
C440	睦牧穆拿哪呐钠那娜纳氖乃奶耐奈南
C450	男难囊挠脑恼闹淖呢馁内嫩能妮霓倪
C460	泥尼拟你匿腻逆溺蔫拈年碾撵捻念娘
C470	酿鸟尿捏聂孽啮镊镍涅您柠狞凝宁

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
C520	拧	泞	牛	扭	钮	纽	脓	浓	农	弄	奴	努	怒	女	暖	
C530	虐	疟	挪	懦	糯	诺	哦	欧	鸥	殴	藕	呕	偶	沤	啪	趴
C540	爬	帕	怕	琶	拍	排	牌	徘	湃	派	攀	潘	盘	磐	盼	畔
C550	判	叛	乓	庞	旁	耪	胖	抛	咆	刨	炮	袍	跑	泡	呸	胚
C560	培	裴	赔	陪	配	佩	沛	喷	盆	砰	抨	烹	澎	彭	蓬	棚
C570	硼	篷	膨	朋	鹏	捧	碰	坯	砒	霹	批	披	劈	琵	毗	

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
CB20	恕	刷	要	摔	衰	甩	帅	栓	拴	霜	双	爽	谁	水	睡	
CB30	税	吮	瞬	顺	舜	说	硕	朔	烁	斯	撕	嘶	思	私	司	丝
CB40	死	肆	寺	嗣	四	伺	似	饲	巳	松	耸	怂	颂	送	宋	讼
CB50	诵	搜	艘	擞	嗽	苏	酥	俗	素	速	粟	僳	塑	溯	宿	诉
CB60	肃	酸	蒜	算	虽	隋	随	绥	髓	碎	岁	穗	遂	隧	祟	孙
CB70	损	笋	蓑	梭	唆	缩	琐	索	锁	所	塌	他	它	她	塔	

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
C620	啤	脾	疲	皮	匹	痞	僻	屁	譬	篇	偏	片	骗	飘	漂	
C630	瓢	票	撇	瞥	拼	频	贫	品	聘	乒	坪	苹	萍	平	凭	瓶
C640	评	屏	坡	泼	颇	婆	破	魄	迫	粕	剖	扑	铺	仆	莆	葡
C650	菩	蒲	埔	朴	圃	普	浦	谱	曝	瀑	期	欺	栖	戚	妻	七
C660	凄	漆	柒	沏	其	棋	奇	歧	畦	崎	脐	齐	旗	祈	祁	骑
C670	起	岂	乞	企	启	契	砌	器	气	迄	弃	汽	泣	讫	掐	

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
CC20	獭	挞	蹋	踏	胎	苔	抬	台	泰	酞	太	态	汰	坍	摊	
CC30	贪	瘫	滩	坛	檀	痰	潭	谭	谈	坦	毯	袒	碳	探	叹	炭
CC40	汤	塘	搪	堂	棠	膛	唐	糖	倘	躺	淌	趟	烫	掏	涛	滔
CC50	绦	萄	桃	逃	淘	陶	讨	套	特	藤	腾	疼	誊	梯	剔	踢
CC60	锑	提	题	蹄	啼	体	替	嚏	惕	涕	剃	屉	天	添	填	田
CC70	甜	恬	舔	腆	挑	条	迢	眺	跳	贴	铁	帖	厅	听	烃	

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
C720	恰	洽	牵	扦	钎	铅	千	迁	签	仟	谦	乾	黔	钱	钳	
C730	前	潜	遣	浅	谴	堑	嵌	欠	歉	枪	呛	腔	羌	墙	蔷	强
C740	抢	橇	锹	敲	悄	桥	瞧	乔	侨	巧	鞘	撬	翘	峭	俏	窍
C750	切	茄	且	怯	窃	钦	侵	亲	秦	琴	勤	芹	擒	禽	寝	沁
C760	青	轻	氢	倾	卿	清	擎	晴	氰	情	顷	请	庆	琼	穷	秋
C770	丘	邱	球	求	囚	酋	泅	趋	区	蛆	曲	躯	屈	驱	渠	

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
CD20	汀	廷	停	亭	庭	挺	艇	通	桐	酮	瞳	同	铜	彤	童	
CD30	桶	捅	筒	统	痛	偷	投	头	透	凸	秃	突	图	徒	途	涂
CD40	屠	土	吐	兔	湍	团	推	颓	腿	蜕	褪	退	吞	屯	臀	拖
CD50	托	脱	鸵	陀	驮	驼	椭	妥	拓	唾	挖	哇	蛙	洼	娃	瓦
CD60	袜	歪	外	豌	弯	湾	玩	顽	丸	烷	完	碗	挽	晚	皖	惋
CD70	宛	婉	万	腕	汪	王	亡	枉	网	往	旺	望	忘	妄	威	

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
C820	取	娶	龋	趣	去	圈	颧	权	醛	泉	全	痊	拳	犬	券	
C830	劝	缺	炔	瘸	却	鹊	榷	确	雀	裙	群	然	燃	冉	染	瓤
C840	壤	攘	嚷	让	饶	扰	绕	惹	热	壬	仁	人	忍	韧	任	认
C850	刃	妊	纫	扔	仍	日	戎	茸	蓉	荣	融	熔	溶	容	绒	冗
C860	揉	柔	肉	茹	蠕	儒	孺	如	辱	乳	汝	入	褥	软	阮	蕊
C870	瑞	锐	闰	润	若	弱	撒	洒	萨	腮	鳃	塞	赛	三	叁	

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
CE20	巍	微	危	韦	违	桅	围	唯	惟	为	潍	维	苇	萎	委	
CE30	伟	伪	尾	纬	未	蔚	味	畏	胃	喂	魏	位	渭	谓	尉	慰
CE40	卫	瘟	温	蚊	文	闻	纹	吻	稳	紊	问	嗡	翁	瓮	挝	蜗
CE50	涡	窝	我	斡	卧	握	沃	巫	呜	钨	乌	污	诬	屋	无	芜
CE60	梧	吾	吴	毋	武	五	捂	午	舞	伍	侮	坞	戊	雾	晤	物
CE70	勿	务	悟	误	昔	熙	析	西	硒	矽	晰	嘻	吸	锡	牺	

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
CF20	稀	息	希	悉	膝	夕	惜	熄	烯	溪	汐	犀	檄	袭	席	
CF30	习	媳	喜	铣	洗	系	隙	戏	细	瞎	虾	匣	霞	辖	暇	峡
CF40	侠	狭	下	厦	夏	吓	掀	锨	先	仙	鲜	纤	咸	贤	衔	舷
CF50	闲	涎	弦	嫌	显	险	现	献	县	腺	馅	羡	宪	陷	限	线
CF60	相	厢	镶	香	箱	襄	湘	乡	翔	祥	详	想	响	享	项	巷
CF70	橡	像	向	象	萧	硝	霄	削	哮	嚣	销	消	宵	淆	晓	

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
CA20	省	盛	剩	胜	圣	师	失	狮	施	湿	诗	尸	虱	十	石	
CA30	拾	时	什	食	蚀	实	识	史	矢	使	屎	驶	始	式	示	士
CA40	世	柿	事	拭	誓	逝	势	是	嗜	噬	适	仕	侍	释	饰	氏
CA50	市	恃	室	视	试	收	手	首	守	寿	授	售	受	瘦	兽	蔬
CA60	枢	梳	殊	抒	输	叔	舒	淑	疏	书	赎	孰	熟	薯	暑	曙
CA70	署	蜀	黍	鼠	属	术	述	树	束	戍	竖	墅	庶	数	漱	

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
D020	小	孝	校	肖	啸	笑	效	楔	些	歇	蝎	鞋	协	挟	携	
D030	邪	斜	胁	谐	写	械	卸	蟹	懈	泄	泻	谢	屑	薪	芯	锌
D040	欣	辛	新	忻	心	信	衅	星	腥	猩	惺	兴	刑	型	形	邢
D050	行	醒	幸	杏	性	姓	兄	凶	胸	匈	汹	雄	熊	休	修	羞
D060	朽	嗅	锈	秀	袖	绣	墟	戌	需	虚	嘘	须	徐	许	蓄	酗
D070	叙	旭	序	畜	恤	絮	婿	绪	续	轩	喧	宣	悬	旋	玄	

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
D120	选癣眩绚靴薛学穴雪血勋熏循旬询															
D130	寻驯巡殉汛训讯逊迅压押鸦鸭呀丫芽															
D140	牙蚜崖衙涯雅哑亚讶焉咽阉烟淹盐严															
D150	研蜒岩延言颜阎炎沿奄掩眼衍演艳堰															
D160	燕厌砚雁唁彦焰宴谚验殃央鸯秧杨扬															
D170	佯疡羊洋阳氧仰痒养样漾邀腰妖瑶															

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
D720	住注祝驻抓爪拽专砖转撰赚篆桩庄															
D730	装妆撞壮状椎锥追赘坠缀谆准捉拙卓															
D740	桌琢茁酌啄着灼浊兹咨资姿滋淄孜紫															
D750	仔籽滓子自渍字鬃棕踪宗综总纵邹走															
D760	奏揍租足卒族祖诅阻组钻纂嘴醉最罪															
D770	尊遵昨左佐柞做作坐座															

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
D220	摇尧遥窑谣姚咬舀药要耀椰噎耶爷															
D230	野冶也页掖业叶曳腋夜液一壹医揖铱															
D240	依伊衣颐夷遗移仪胰疑沂宜姨彝椅蚁															
D250	倚已乙矣以艺抑易邑屹亿役臆逸肄疫															
D260	亦裔意毅忆义益溢诣议谊译异翼翌绎															
D270	茵荫因殷音阴姻吟银淫寅饮尹引隐															

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
D820	于丌兀丐廿卅丕亘丞鬲孬噩丨禺丿															
D830	匕乜夭爻厄氐囟胤馗毓睾鼗丶亟鼐乜															
D840	乩亓羋孛嗇嘏仄厍厝廇厥厮靥赝匚叵															
D850	匾匿匾赜卦卣 刂刈刎刭刳刿剀剌剞剡															
D860	剜蒯剽劂劁劐剔剞冂罔亻仃仉仂仨伛															
D870	仞伥仳伢佤仵伥伧伉伫佞佧攸佚佝															

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
D320	印英樱婴鹰应缨莹萤营荧蝇迎赢盈															
D330	影颖硬映哟拥佣臃痈庸雍踊蛹咏泳涌															
D340	永恿勇用幽优悠忧尤由邮铀犹油游酉															
D350	有友右佑釉诱又幼迂淤于盂榆虞愚舆															
D360	余俞逾鱼愉渝渔隅予娱雨与屿禹宇语															
D370	羽玉域芋郁吁遇喻峪御愈欲狱育誉															

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
D920	佟佗佗伽佶佴侑侉侃侏佾佻侪佼依															
D930	侔俦俨俪俅俚俣俜俑俟俸倩偌俳倬倏															
D940	偾偻偁偶偺倥偌偃偍偕偈偎傀偻傥傧															
D950	傩僚僖徽僭僬傲僮僳僚僮仝余佘佥俎龠															
D960	汆籴兮巽黉馘冁夔勹匍匐匐凫夙兕亠															
D970	兗亳衮袤衮裔袁寨赢羸羸冫冱冽冼															

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
D420	浴寓裕预豫驭鸳渊冤元垣袁原援辕															
D430	园员圆猿源缘远苑愿怨院曰约越跃钥															
D440	岳粤月悦阅耘云郧匀陨允运蕴酝晕韵															
D450	孕匝砸杂栽哉灾宰载再在咱攒暂赞赃															
D460	脏葬遭糟凿藻枣早澡蚤躁噪造皂灶燥															
D470	责择则泽贼怎增憎曾赠扎喳渣札轧															

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
DA20	淞一冢冥讠讦讧讪讴讵讷诂诃诋诏															
DA30	诎诒诓诔诖诘诙诜诟诠诤诨诩诮诰诳															
DA40	诶诹诼诿谀谄谇谌谏谑谒谓谕谖谙															
DA50	谛谘谝谟谠谡谥谧谪谫谮谯谲谳谵															
DA60	卩卺阝阢阡阱阪阽阼陂陉陔陟陧陬陲															
DA70	陴隈隍隗隰邗邛邝邙邬邡邴邳邶邺															

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
D520	铡闸眨栅榨咋乍炸诈摘斋宅窄债寨															
D530	瞻毡詹粘沾盏斩辗崭展蘸栈占战站湛															
D540	绽樟章彰漳张掌涨杖丈帐账仗胀瘴障															
D550	招昭找沼赵照罩兆肇召遮折哲蛰辙者															
D560	锗蔗这浙珍斟真甄砧臻贞针侦枕疹诊															
D570	震振镇阵蒸挣睁征狰争怔整拯正政															

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
DB20	郓邰郧郅邮郗郜郓郦郢郜郗郛郸															
DB30	郯郾鄄鄢鄞鄣鄱鄯鄹酃酆刍奂劢劬劭															
DB40	劾哿勐勖勰嫠叟燮曌朁厶口囱邑么弁畚巯															
DB50	坌垩垡塾墼壅壑圩圬圪圳圹圮圯坜坼															
DB60	坂坩垅坫垆坼坻坨坭坶坳埭垭垌垲埏															
DB70	垧垴垓垠垭垧垴垱垤垸塘垴塌垧埝															

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
D620	帧症郑证芝枝支吱蜘知肢脂汁之织															
D630	职直植殖执值侄址指止趾只旨纸志挚															
D640	掷至致置帜峙制智秩稚质炙痔滞治窒															
D650	中盅忠钟衷终种肿重仲众舟周州洲诌															
D660	粥轴肘帚咒皱宙昼骤珠株蛛朱猪诸诛															
D670	逐竹烛煮拄瞩嘱主著柱助蛀贮铸筑															

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
DC20	堋堍埽埭堀堞堙塄堰堠塍墁墀墀															
DC30	馨鼙懿艹艽芳芏芊芰芄芎芑芗芴芸芷芰															
DC40	芾芰苈苣苡芷芮苋苌苁芩苏芡芪芰芨															
DC50	芊芒芄苡茉苷茎茏芰苜苴苒苘茬荇苓															
DC60	茑茆茆莹茺茛荟茜薨尧華茈莒莆茴茱															
DC70	莛荞茯荏荇荃荟荀茗荠荽荛茳荤荥															

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
DD20	尋	莨	蒽	荚	荪	荭	荮	荸	荻	荼	莓	莠	莪	莽	莸	莼
DD30	莅	茶	莶	荤	荽	荻	荻	莘	莞	莨	莺	莼	菁	萁	萠	萩
DD40	堇	萦	婪	菝	菽	萇	萷	萸	萑	草	菔	菟	莒	萃	菸	菹
DD50	若	菅	菀	萦	菰	菡	葜	葑	葚	葙	葳	蕨	蓿	葺	黄	葸
DD60	萼	葆	葩	葶	萎	漭	萱	葭	蓁	蓄	犀	鸯	葱	蓓	蓊	蒿
DD70	蒺	蓠	蒡	蒹	蒴	蒲	蓥	蔌	蔻	蔹	蔑	蒏	蔹	蓿	蔟	藺

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
E320	恪	恽	悖	悚	悝	悃	悒	悌	悛	悃	悸	悻	悱	悄	惆	惘
E330	惆	惚	悴	愠	愦	愕	愣	惴	愀	愎	惶	愫	愍	慵	慊	憧
E340	憬	憔	憎	忝	驥	闩	闫	闱	闵	闵	闶	闼	闾	阃	阄	阆
E350	阈	阊	阋	阌	阍	阏	阒	阖	阗	阙	阚	阌	丬	爿	戕	氵
E360	汔	汜	汊	沣	沅	沐	沔	沌	汨	汩	汴	汶	沆	沩	沸	沘
E370	沭	泷	泸	泱	泗	沲	泠	泖	泺	泫	泮	沱	泯	泐	泗	浃

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
DE20	蘠	蔻	蓿	蓼	蕙	蕈	蕨	蕤	蕞	蕺	瞢	蕃	蕲	蕻	薤	薇
DE30	薨	薇	薏	薤	薮	薜	薷	薹	薷	藁	藓	藁	藜	藿	蘧	蘅
DE40	蘩	蘖	蘼	廾	弈	夼	奁	奄	奕	奚	奘	匏	尢	尬	尴	尷
DE50	扌	扪	抟	抻	拚	拗	拮	挢	挣	挹	捋	捃	掾	揿	揄	揎
DE60	揉	揶	揿	搜	搌	搀	掼	掸	掴	揽	揿	揄	揎	揎	摒	揆
DE70	摒	揿	揾	揸	揿	摒	揿	揸	摒	揿	揾	揸	揿	揿	摭	撖

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
E420	洹	洧	涔	冽	浃	浈	洇	洙	洎	涌	浍	涤	浇	浞	浯	浏
E430	涪	浔	涊	浈	涑	涿	涠	浞	涔	涧	涅	浏	涤	浇	淆	渚
E440	淇	淅	淞	渎	涿	浒	渑	浚	浉	涪	渌	淆	渊	淄	渍	渥
E450	淀	渌	渍	潋	渑	渲	湄	滠	渑	浞	滤	溉	滂	渍	湮	湾
E460	溧	溻	溷	漉	潆	溆	塘	滂	洳	潢	漾	濡	溧	滢	溏	滂
E470	澍	澧	潋	潴	滴	漉	漱	澈	澌	潜	溍	潴	澎	潋	滟	澍

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
DF20	摺	撷	撸	撙	撺	擐	擗	擘	擢	攉	攥	攫	弋	忒		
DF30	甙	弒	卟	叱	叽	叩	叨	叻	吒	吖	吆	呋	呒	呓	呔	呖
DF40	呃	呲	呗	呙	呐	呤	呷	呼	呱	呤	咚	咛	咄	呶	呦	
DF50	咝	哐	咭	哂	咳	哒	咧	咦	哓	哔	呲	咔	哕	咻	哝	哜
DF60	哙	哚	哜	咩	咪	咤	哙	哏	哞	唢	唠	哽	唔	哳	唧	唝
DF70	唣	唏	唑	唧	唪	啧	啧	喵	啭	啮	啧	喋	喳	啧	喷	

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
E520	濉	澧	澹	澶	濡	濮	濞	濠	濯	瀚	瀣	瀛	瀹	瀵		
E530	灏	灞	宀	宄	宕	宓	宥	宸	甯	骞	窘	寮	褰	寰	蹇	
E540	謇	辶	迓	迕	迥	迮	迤	迩	迦	迳	迨	逅	逄	逋	逦	逑
E550	逍	逖	逵	逶	逭	逯	逄	遛	遨	遒	遘	遢	遨	遛	遢	遛
E560	遴	遽	避	邀	邃	彐	彗	彖	彘	尻	咫	屐	屙	孱		
E570	屣	孱	驽	弩	弭	毓	弼	弼	鬻	屮	妁	妃	妍	妩	妪	妣

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
E020	唷	唉	唆	啶	唧	唳	唢	啜	喋	嗒	喃	喱	喹	喈	喁	
E030	喟	啾	嗖	喑	啻	嗟	喽	喾	喧	嗳	嗍	嗪	嗟	嗄		
E040	嗬	嗔	嗓	嗝	嗄	嗯	嗥	嗲	嗳	嗌	嗝	嗨	嗵	嗤	嗾	嗽
E050	嘈	嘌	嘁	嘤	嘣	嗫	嘀	嗾	嘭	噍	噎	噪	噫	噢	噙	
E060	噜	噌	噔	噤	噱	噙	噻	噼	嚓	嚯	嚏	嚅	嚷	口	团	囡
E070	囵	囫	囹	圄	圊	圉	圜	帏	帙	帔	帑	帱	帻	帼		

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
E620	妗	姊	妫	妞	妤	姒	妲	妯	姗	妾	娅	娆	姝	娈	姣	
E630	姘	姹	娉	娲	娴	娑	娣	娓	婀	婧	婊	婕	娼	婢	婵	
E640	胬	媪	媛	婷	婺	媾	嫫	媲	嫒	嫔	媸	嫠	嫣	婶	嫱	嫖
E650	嫘	嫜	嬉	嬖	嬲	嫉	嫡	尕	佘	孚	孥	孪	子	孓	孢	
E660	驵	驷	驸	驺	驿	驽	驺	骁	骅	骈	骓	骐	骒	骕	骖	骘
E670	骛	骜	骝	骟	骠	骢	骣	骥	纟	纡	纣	纥	纨	纩		

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
E120	帷	幄	幔	幛	幞	幡	岌	屺	岍	岐	岖	岈	岘	岙	岑	
E130	岚	岜	岵	岢	岽	岫	岱	岣	峁	岷	峄	峒	峤	峋	峥	
E140	崂	崃	崧	崦	崮	崤	崞	崆	崛	嵘	崾	崽	崴	崭	嵯	
E150	嵝	嵫	嵋	嵊	嵩	嵴	嵘	嶙	嶝	幽	嶷	巅	彳	彷	徂	徇
E160	徉	後	徕	徙	徜	徨	徭	徵	徼	衢	彡	犭	犰	犴	犷	犸
E170	狃	狁	狎	狍	狒	狨	狯	狩	狲	狴	狷	猁	狳	猃	猕	

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
E220	狻	猗	猓	猡	猊	猝	猕	猢	猹	猁	猇	猫	猜	猞	猸	猪
E230	猄	獗	獐	獒	獠	蚜	賴	飧	夂	饣	饧	饨	饩	饪	饫	饬
E240	饴	饷	饽	饼	馀	馄	馇	馊	馍	馐	馑	馓	馔	馕	庀	
E250	庑	庋	庖	庥	庠	庹	庵	庾	庳	赓	廒	廑	廛	廨	廪	廥
E260	廾	忉	忖	忏	忱	忸	怦	怅	怆	怍	忪	忭	忸	怙		
E270	怵	怦	怛	怏	怍	怩	怫	怊	怿	怡	恸	恹	恻	恼		

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
E820	琛	琚	瑁	瑜	瑗	瑕	瑙	瑗	瑭	瑾	璜	璎	璀	璁	璇	
E830	璋	璞	璨	璩	璐	璧	璠	璺	璃	韫	韬	杌	杓	杞	杈	杩
E840	枥	枇	杪	杳	枘	枧	杵	枨	枞	枭	枋	杷	杼	柰	栉	柘
E850	栊	柩	枰	栌	柙	枷	柚	枳	栎	柜	柃	枸	柢	栎	柁	柽
E860	桄	桦	桎	梳	桫	桃	桅	桢	桠	桓	桤	桕	桁	桧	桀	栾
E870	桨	桉	栩	梵	梏	桴	桷	梓	桫	椁	椟	椤	槁	橛	梾	楙

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
E920	椤	棰	椋	椁	楗	棣	椐	楝	榄	楫	榀					
E930	榘	榈	椴	槌	棕	榍	槎	榉	槔	榄	棠	椤	槿	榇	槁	樯
E940	樟	槠	槁	樊	槟	榕	槠	樯	槠	檣	槭	樗	檫	檗	懒	橄
E950	檑	檠	橐	橛	樵	檐	榧	樽	樫	槲	橘	橡	檑	檐	檩	檫
E960	猷	獒	殁	殂	殇	殄	殒	殓	殍	殚	殡	殣	殪	轫	轭	轱
E970	轲	轳	轷	轸	轵	轶	轫	轼	轻	轲	轿	辁	辂	辋	辇	辋

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
EF20	铗	铙	铮	铯	铳	铘	铵	铷	铹	铤	铽	铿	锃	锂	锆	
EF30	锇	锉	锔	锍	铜	铜	锒	锃	锏	锕	锖	锘	锛	锝	锞	锟
EF40	锢	锪	锫	锬	锧	锲	锴	锶	锣	锸	锼	锾	锿	镂	锵	
EF50	镄	镅	镇	镉	镌	镎	镅	锰	镓	镔	镖	镗	镘	镙	镛	镞
EF60	镜	镝	镡	镢	镤	镥	镦	镧	镍	镞	镝	镢	镥	镩	镯	镣
EF70	镳	镯	矧	矬	雉	秕	秭	秣	秫	稆	嵇	稃	稂	稞	稔	

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
EA20	鞍	辎	辏	辘	辚	軎	戋	戗	戛	戟	戡	戢	戣	戤		
EA30	臧	瓯	瓠	瓢	瓤	瓥	攴	旮	旻	旰	昊	昙	杲	昃	昕	昀
EA40	昀	炅	曷	皆	昂	昱	昶	昵	耆	晟	晔	晁	晏	晖	晡	晗
EA50	晷	暄	暌	暖	暝	暾	曜	曦	曩	贲	贳	贶	贻	贽	赀	
EA60	赅	赊	赈	赉	赇	赍	赕	觇	觊	觋	觌	觎	觏	觐		
EA70	垩	壅	牝	牦	牯	牾	牿	犋	犍	犏	犒	挈	挲	掰		

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
F020	稹	稷	穑	黏	馥	穰	皈	皎	皓	晢	晔	晖	骅	甭	鸠	
F030	鸢	鸨	鸡	鸪	鸲	鸭	鸸	鸳	鸵	鹩	鹪	鹬	鸹	鸽	鸼	鹃
F040	鹆	鹇	鹈	鹉	鹑	鹕	鹗	鹚	鹞	鹣	鹦	鹧	鹫	鹱	鹭	鹳
F050	鹾	鹺	麀	麂	麇	麈	麋	麒	麓	麝	麟	疔	疖	疠	疝	疬
F060	疣	疳	疴	疸	疹	疼	疽	痂	痈	痉	痊	痍	痒	痔	痕	痢
F070	痧	瘃	痱	痼	痿	瘀	瘁	瘅	瘌	瘐	瘕	瘗	瘘	瘢	瘙	

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
EB20	掰	擘	耄	毡	氇	毽	毵	毹	氅	氆	氍	毪	氁	氅	氙	氚
EB30	氚	氧	氩	氤	氪	氲	攵	敕	敫	牍	牒	牖	爰	虢	刖	肟
EB40	肜	肓	肼	肮	肱	肫	肭	肴	肸	胧	胨	胩	胪	胛	胂	
EB50	胄	胙	胍	胗	胸	胝	胫	胱	胴	胭	脍	脎	胼	朕	脒	
EB60	豚	脶	脞	脬	脘	脝	腓	腴	腙	腚	腱	腠	腩			
EB70	腽	腭	腧	塍	腻	腼	腽	腔	膪	膜	膣	膪	臜			

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
F120	瘛	瘼	瘢	瘠	瘭	瘰	瘿	瘵	瘳	瘼	瘾	瘻	瘪	癃	癍	
F130	癜	癖	癔	癜	癞	癯	翊	竦	穸	穹	窀	穽	窀	穾	窠	窠
F140	窭	窳	衤	衩	衲	衽	衿	袂	袢	裆	袷	袼	裉	裢	裎	裣
F150	裥	裱	褚	裼	裨	裾	裰	褡	褙	褓	褛	褊	褴	褫	褶	褪
F160	褥	褴	襁	褸	襄	褻	褶	褐	褥	襆	裤	襕	襦	襞	襟	襞
F170	褽	褥	襞	襻	耵	聍	聆	聃	聒	聘	聱	覃	顸	颀	颃	

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
EC20	臁	臂	软	欹	欹	歃	歙	飓	飒	飓	飙	飚	殳			
EC30	毂	彀	彀	斐	斋	斓	於	旆	旄	旃	旄	旄	旖	炀	炜	
EC40	炖	炝	炻	烀	炷	炫	炔	烨	烊	焐	烙	炯	焯	焱	煳	煜
EC50	煨	煅	煲	煊	煸	煲	熘	熨	熠	熳	熘	燧	熨	燔		
EC60	爨	灬	焘	煦	熹	戾	戽	扃	扈	扉	礻	祀	祆	祉	祛	祜
EC70	祓	祚	祢	祗	祠	祯	祧	祺	禅	禊	禚	禧	禳	忑	忐	

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
F220	颉	颌	颍	颈	颔	颚	颇	颃	颃	颖	颗	颞	颟	颧	龙	虔
F230	虮	虬	蛩	虺	虼	虹	蚨	蚍	蚋	蚬	蚝	蚣	蚣	蚪	蚓	蚩
F240	蚶	蛄	蚵	蛐	蚰	蚺	蚱	蚯	蛉	蛏	蚴	蛩	蛱	蛲	蛭	蛳
F250	蛐	蜓	蛞	蛴	蛟	蛘	蛑	蜃	蛰	蛳	蛏	蛉	蛎	蚰	蜒	
F260	蜞	蜍	蜮	蜇	蜾	蝈	蜴	蜩	蜱	蜷	蜿	蜞	蜈	蝣	蝶	蝻
F270	蝠	蝰	蝌	蝮	蝼	蝣	蝤	蝙	蝥	蝓	蝣	蝼	蝻	蠕	蠛	

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
ED20	怒	恕	恚	恁	恙	恣	悫	愆	愍	慝	憩	懑	懋	懔		
ED30	戆	尹	丰	沓	浆	淼	矶	矸	砀	砉	砗	砘	砑	斫	砜	砹
ED40	砝	砬	砺	砗	砥	砭	砣	砩	砻	砟	砼	砚	砬	砺	砼	硐
ED50	硝	硌	硪	碛	碓	碚	碜	碡	碲	碣	碱	碟	碴	碾		
ED60	磐	磔	磙	磴	磲	礓	礤	礞	礴	龛	黹	黻	黼	盱	眄	眍
ED70	盹	眇	眚	眢	眙	眭	眵	眸	睑	睥	睽	睾	睫			

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
F320	蟆	螈	螅	螭	螗	螃	螫	蟥	螬	螵	螳	蟋	蟓	蠊	蟑	
F330	蟀	蠊	蟛	蠖	蠓	蟓	蠖	蠕	蠊	蠼	蠊	蠹	缶	罂		
F340	罄	罅	舐	竺	竽	笈	笃	笄	笕	笊	笫	笏	筇	笸	笪	笙
F350	笮	笋	笠	笥	笤	笳	笞	筘	筚	筅	筵	筌	筠	筮	筻	
F360	箦	箢	箐	箴	箸	箧	箸	箬	箝	箨	箅	箪	箜	箧	箫	
F370	篑	篓	篌	篙	篝	篪	篥	篦	篾	篼	簏	簖	篾	篪	篮	

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
EE20	睢	睥	睿	瞍	睽	瞀	瞌	瞑	瞟	瞠	瞰	瞵	瞽	町	畀	
EE30	畎	畋	畈	畚	畹	畽	畚	畺	畴	畸	畿	畺	畼	畾	疁	疃
EE40	疃	畲	盥	蠲	钅	钆	钋	钊	钌	钍	钏	钐	钌	钗	钕	
EE50	钚	钬	钜	钣	钤	钫	钪	钭	钯	钰	钲	钴	钶	钸	钹	
EE60	钺	钺	钼	钿	铄	铈	铉	铊	铋	铌	铍	铎	铐	铑	铒	
EE70	铕	铖	铗	铙	铘	铞	铠	铪	铩	铫	铬	铧	铨	铪		

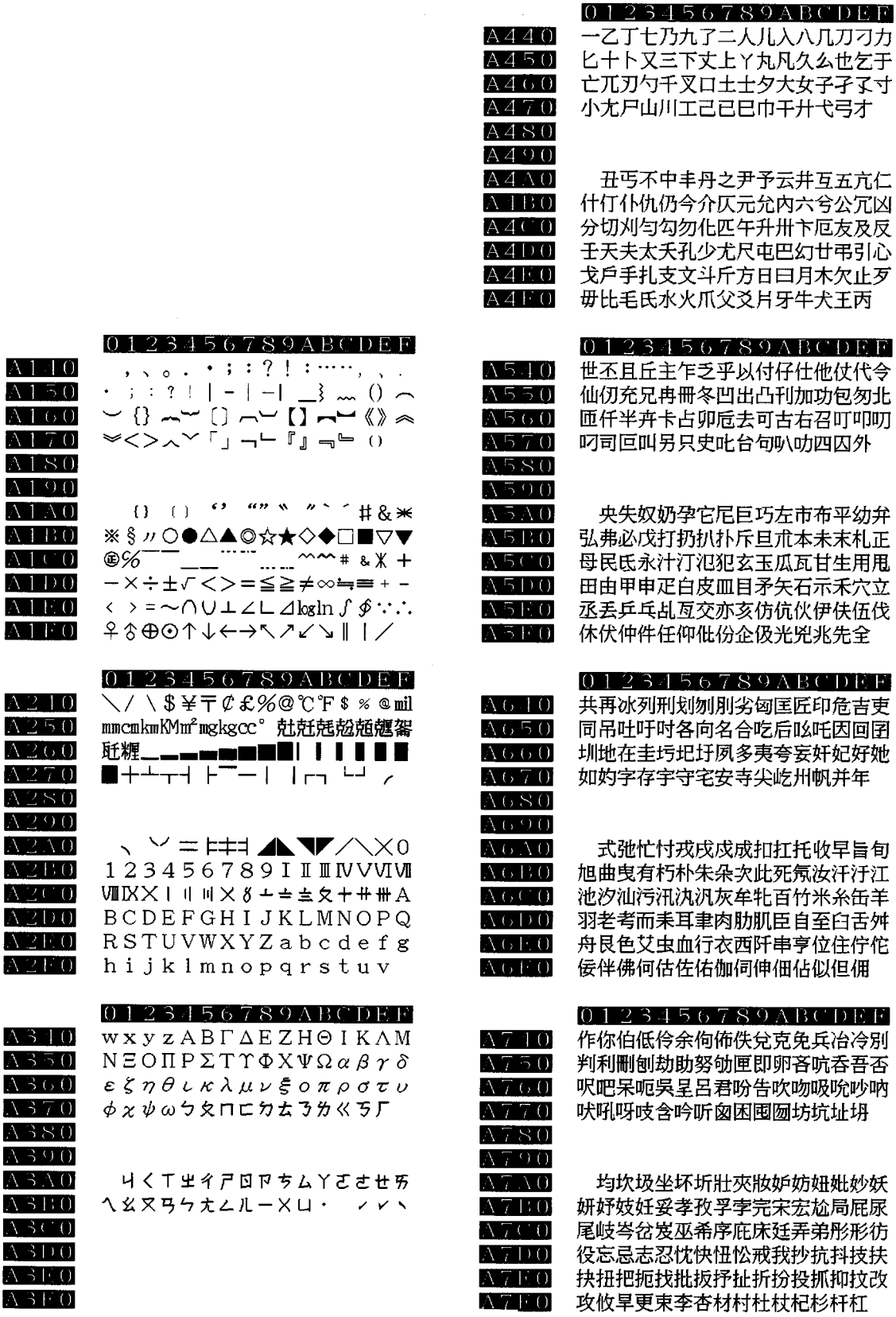
	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
F420	簟	簪	簦	簸	籁	籀	臾	舁	舂	舄	臬	衄	舡	舢	舣	舭
F430	舯	舨	舫	舸	舻	舳	舻	舢	舨	舱	舭	舻	舳	舻	舾	艄
F440	艉	艋	艏	艚	艟	艨	衾	衮	袈	裘	裟	襞	羝	羟	羧	羯
F450	羰	羲	籼	敉	粑	粝	粜	粞	粢	粲	粼	粽	糁	糇	糌	糍
F460	糈	糅	糗	糨	艮	暨	羿	翎	翕	翥	翡	翦	翩	翮	翳	糸
F470	絮	絷	綦	綮	縠	縻	衅	衔	补	衬	衮	袄	袅	袆	袜	被

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
F520	酢	酡	酰	酩	酯	酽	酾	酲	酴	酵	酶	酷	酸	酹	酺	醅
F530	醢	醣	醪	醭	醮	醯	醵	醴	醺	豕	鹾	趸	趋	趱	趿	跁
F540	趵	趿	趼	趺	趄	趴	趵	趸	趼	趿	趾	趺	跂	跄	跆	跌
F550	跎	跏	跗	跚	跖	跌	跟	跠	跣	跤	跦	跧	跩	跪	跫	跬
F560	踵	踽	踱	踉	踹	踺	踾	踽	踼	踽	踾	踿	蹀	蹁	蹂	蹋
F570	蹙	蹶	蹼	蹻	豸	貂	貊	貔	貘	貙	觔	觖	觫	觯	觜	

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
F620	觥	觫	觯	訾	謦	靓	雩	雳	雯	霆	霁	霈	霏	雳	雯	霪
F630	霭	霾	靡	靥	靼	鞑	靳	靼	靿	骀	骁	骅	骐	骊	骍	骎
F640	骓	骠	骢	骣	骥	骧	髅	髁	髑	髓	鬃	鬈	鬏	鬓	鬟	鬣
F650	麽	麾	麸	黩	鼋	鼍	鼗	鼹	齄	齐	齑	齿	龀	龁	龂	龃
F660	龄	龅	龆	龇	龈	龉	龊	龌	黾	鼋	鼍	隹	隼	隽	雎	雒
F670	鹆	鹇	鹈	鹉	鹑	鹒	鹔	鹕	鹖	鹗	鹘	鹚	鹛	鹜	鹞	鹣

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
F720	鹦	鹧	鹪	鹫	鹬	鹱	鹭	鹳	疒	疔	疖	疠	疝	疬	疣	疳
F730	疴	疸	疹	疼	疽	疾	痂	痄	病	症	痈	痉	痊	痍	痒	痔
F740	痕	痘	痞	痢	痣	痤	痧	痨	痪	痫	痰	痱	痴	痹	痼	痿
F750	瘀	瘁	瘃	瘅	瘊	瘌	瘐	瘕	瘗	瘘	瘙	瘛	瘢	瘤	瘥	瘦
F760	瘩	瘪	瘫	瘴	瘵	瘸	瘾	瘿	癀	癃	癌	癍	癔	癖	癜	癞
F770	癣	癫	癯	癸	发	皑	皓	皴	皲	皱	皿	盂	盅	盆	盍	盏

4-4) Taiwanese Character Codes



	0 1 2 3 4 5 6 7 8 9 A B C D E F
A8 1 0	杓杗步每求汞沙沁沈沉沅沛汪決沐汰
A8 5 0	沌汨沖沒汽沃汲汾汴沆汶沍沔沘沂灶
A8 6 0	灼災灸牢牡牠狄狂玖甬甫男甸皂盯矣
A8 7 0	私秀禿究系罕肖肓肝肘肛肚育良芒
A8 8 0	
A8 9 0	
A8 A 0	芋芍見角言谷豆豕貝赤走足身車辛
A8 B 0	辰迂迆迅迄巡邑邢邪邦那酉釆里防阮
A8 C 0	阱阪阬並乖乳事些亞享京佯依侍佳使
A8 D 0	佬供例來侃佰併侈佩佻侖佾侏侑佺兔
A8 E 0	兒兕兩具其典冽函刻券刷剌到刮制剁
A8 F 0	劾劻卒協卓卑卦卷卸卹取叔受味呵

	0 1 2 3 4 5 6 7 8 9 A B C D E F
A9 1 0	咖咀咕咀呻呷咄咒咆呼咐呱呶和咚呢
A9 5 0	周咋命咎固垃坷坪坩坡坦坤坼夜奉奇
A9 6 0	奈奄奔妾妻委妹妮姑姆姐姍始姓姊妯
A9 7 0	妳妙妦孟孤季宗定官宜宙宛尚屈居
A9 8 0	
A9 9 0	
A9 A 0	屆岷岡岸岩岫岱岳帘帚帖帕帛帑幸
A9 B 0	庚店府底庖延弦弧弩往征彿彼忝忠忽
A9 C 0	念忿怏怔怯怵怖怪怕怡性怩怫怛或戕
A9 D 0	房戾所承拉拌拄抿拂抹拒招披拓拔拋
A9 E 0	拈抨抽押拐拙拇拍抵拚抱拘拖拗拆抬
A9 F 0	拎放斧於旺昔易昌昆昂明昀昏昕昊

	0 1 2 3 4 5 6 7 8 9 A B C D E F
AA 1 0	昇服朋杭枋枕東果杳杷枇枝林杯杰板
AA 5 0	枉松析枻枚枓枰杪杳欣武歧歿氓氛泣
AA 6 0	注泳沱泌泥河沽沾沼波沫法泓沸泄油
AA 7 0	況沮泗泅泱沿治泡泛泊沬沭沮沸泠
AA 8 0	
AA 9 0	
AA A 0	炕炎炒炊炙爬爭爸版牧物狀狎狙狗
AA B 0	狐玩玨玟玫玥甽疝疙疚的盂盲直知矽
AA C 0	社祀祁祇祥穸穹竺糾罔羌羋者肺肥肢
AA D 0	肱股肫肩肴肪肯臥臾舍芳芝芙芭芽芟
AA E 0	芹花芬芥芯芸芾芻芠芷虎虱初表軋迎
AA F 0	返近邵邸邱邶采金長門阜陀阿阻附

	0 1 2 3 4 5 6 7 8 9 A B C D E F
AB 1 0	陂隹雨青非亟亭亮信侵侯便俠俑俏保
AB 5 0	促俜俘俟俊俗侮俐俄係俚俎俞俱兗冒
AB 6 0	冑冠剎剃削前剌剋則勇勉勃勁匍南卻
AB 7 0	厚叛咬哀咨哎哉咸咦咳哇哂咽咪品
AB 8 0	
AB 9 0	
AB A 0	哄哈咯咫咱咻咩咧咿囿垂型垠垣垢
AB B 0	城垮垓奕契奏奎奐姜姘姿姣姨娃姥姪
AB C 0	姚姦威姻孩宣宦室客宥封屎屏屍屋峙
AB D 0	峒巷帝帥帟幽庠度建弈弭彥很待徊律
AB E 0	徇後徉怒思怠急怎怨恍恰恨恢恆恃恬
AB F 0	恫恪恤扁拜挖按拼拭持拮拽指拱拷

	0 1 2 3 4 5 6 7 8 9 A B C D E F
AC 1 0	拯括拾拴挑挂政故斫施既春昭映昧是
AC 5 0	星昨昱昤曷柿染柱柔某柬架枯柵柩柯
AC 6 0	柄柑柲柚查枸柏柞柳枰柙柢柝柒歪殃
AC 7 0	殆段毒毗氟泉洋洲洪流津洌洱洞洗
AC 8 0	
AC 9 0	
AC A 0	活洽派洶洛泵洹洧洸洩洮洵洎洫炫
AC B 0	為炳炬炯炭炸炮炤爰牲牯牴狩狠狡玷
AC C 0	珊玻玲珍珀玳甚甭畏界畎畋疫疤疥疢
AC D 0	疣癸皆皇皈盈盆盃盅省盹相眉看盾盼
AC E 0	眇矜砂研砌砍祆祉祈祇禹禺科秒秋穿
AC F 0	突竿竽籽紂紅紀紉紇約紆缸美羿耄

	0 1 2 3 4 5 6 7 8 9 A B C D E F
AD 1 0	耐耍耑耶胖胥胚胃胄背胡胛胎胞胤胝
AD 5 0	致舢苧范茅苣苛苦茄若茂茉苒苗英苴
AD 6 0	苜苔苑苞苓苟苯苧虐虹虻虺衍衫要觔
AD 7 0	計訂訃貞負赴赳趴軍軌述迦迢迪迥
AD 8 0	
AD 9 0	
AD A 0	迭迫迤迨郊郎郁郃酋酊重閂限陋陌
AD B 0	降面革韋韭音頁風飛食首香乘亳倌倍
AD C 0	倣俯倦倥倖倩倬倆值借倚倒們俺倀倔
AD D 0	倨俱倡個候倘俳修倭倪俾倫倉兼冤冥
AD E 0	冢凍凌准凋剖剜剔剛剝匪卿原厝叟哨
AD F 0	唐唁唷哼哥哲唆哺唔哩哭員唉哮哪

	0 1 2 3 4 5 6 7 8 9 A B C D E F
AE 1 0	哦唧唇哽唏圃圄埂埔埋埃堉夏套奘奚
AE 5 0	娑娘娜娟娛娓姬娠娣娩娥娌娉孫屘宰
AE 6 0	害家宴宮宵容宸射屑展屜峭峽峻峪峨
AE 7 0	峰島崁峴差席師庫庭座弱徒徑徐恙
AE 8 0	
AE 9 0	
AE A 0	恣恥恐恕恭恩息悄悟悚悍悔悌悅悖
AE B 0	扇拳摯拿捎挾振捕捂捆捏捉挺捐挽挪
AE C 0	挫挨捍捌效敉料旁旅時晉晏晃晒晌晅
AE D 0	晁書朔朕朗校核案框桓根桂桔栩梳栗
AE E 0	桌桑栽柴桐桀格桃株桅栓栘桁殊殉殷
AE F 0	氣氧氨氦氤泰浪涕消涇浦浸海浙涓

	0 1 2 3 4 5 6 7 8 9 A B C D E F
AF 1 0	浬涉浮浚浴浩涌涊浹涅淌烊烘烤烙
AF 5 0	烈烏爹特狼狹狽狸狷玆班琉珮珠珪珞
AF 6 0	畔畝畜畚留疾病症疲疳疽疼疹痂疸皋
AF 7 0	皰益盍盎眩真眠眨矩砰砧砸砝破砷
AF 8 0	
AF 9 0	
AF A 0	砥砭砠砟砲祕祐祠祟祖神祝祗祚秤
AF B 0	秣秧租秦秩秘窄窈站笆笑粉紡紗紋紊
AF C 0	素索純紐紕級紜納紙紛缺罟羔翅翁耆
AF D 0	耘耕耙耗耽耿胱脂胰脅胭胴脆胸胳脈
AF E 0	能脊胼胯臭臬舀舐航舫舨般芻茫荒荔
AF F 0	荊茸荐草茵茴荂茲茹茶茗荀茱茨荃

	0 1 2 3 4 5 6 7 8 9 A B C D E F
B0 1 0	虔蚊蚪蚓蚤蚩蚌蚣蚜衰衷袁袂衽衹記
B0 5 0	訐討訌訕訊託訓訖訏訑豈豺豹財貢起
B0 6 0	躬軒軔軏辱送逆迷退迺迴逃追逅迸邕
B0 7 0	郡郝郢酒配酌釘針釗釜釙閃院陣陡
B0 8 0	
B0 9 0	
B0 A 0	陛陝除陘陞隻飢馬骨高鬥鬲鬼乾偺
B0 B 0	偽停假偃偌做偉健偶偎偕偵側偷偏倏
B0 C 0	偯偭兜冕凰剪副勒務勘動匐匏匙匿區
B0 D 0	匾參曼商啪啦啄啞啡啃啊唱啖問啕唯
B0 E 0	啤唸售啜唬啣唁喉喝啗圈國圉域堅堊堆
B0 F 0	埠埤基堂堵執培夠奢娶婁婉婦婪婀

	0 1 2 3 4 5 6 7 8 9 A B C D E F
B1 1 0	娼婢婚婆婞孰寇寅寄寂宿密尉專將屠
B1 5 0	屜屠崇崆崎崛崖崢崑崩崔崙崤崧崗巢
B1 6 0	常帶帳帷康庸庶庵庾張強彗彬彩彫得
B1 7 0	徙從徘御徠徜徵惠悉悠悠惋悴悵惸
B1 8 0	
B1 9 0	
B1 A 0	情悻悵惜悼悶惕惆惟悸惚惇戚戛扈
B1 B 0	掠控捲掖探接捷捧掘措捱掩掉掃掛捫
B1 C 0	推掄授掙採掬排掏掀捻捩捨捺敝敖救
B1 D 0	教敗啟敏敘敕敔斜斛斬族旋旌旎晝晚
B1 E 0	晤晨晦晞曹勗望梁梯梢梓梵桿桶梱梧
B1 F 0	梗械梃棄梭梆梅梔條梨梟梡梂欲殺

	0 1 2 3 4 5 6 7 8 9 A B C D E F
B2 1 0	毫毬氫涎凉淳淙液淡淌淤添淺清淇淋
B2 5 0	涯淑淵淞淹涸混淵淅淒渚涵淚淫淘淪
B2 6 0	深淮淨淆淄涪淬涿淦烹焉焊烽烯爽牽
B2 7 0	犁猜猛猖猓猙率琅琊球理現琍瓠瓶
B2 8 0	
B2 9 0	
B2 A 0	瓷甜產略畦畢異疏痔痕疵痊痍皎盔
B2 B 0	盒盛眷眾眼眶眸眺硫硃硎祥票祭移窒
B2 C 0	窕笠笨笛第符笙笞笮粒粗粕絆絃統紮
B2 D 0	紹紼絀細紳組累終紲紱缽羞羚翌翎習
B2 E 0	耜聊聆脯脖脣脫脩脰脹脤舵舷舶船莎
B2 F 0	莞莘荸莢莖莽莫莒莊莓莉莠荷荻荼

	0 1 2 3 4 5 6 7 8 9 A B C D E F
B3 1 0	莆莧處彪蛇蛀蚰蛄蚵蛆蛋蚱蚯蛉術袞
B3 5 0	袈被袒袖袍袋覓規訪訝訣訥許設訟訛
B3 6 0	訢豉豚販責貫貨貪貧赧赦趾趺軛軟這
B3 7 0	逍通逗連速逝逐逕逞造透逢逖逛途
B3 8 0	
B3 9 0	
B3 A 0	部郭都酗野釵釦釣釧釭釩閉陪陵陳
B3 B 0	陸陰陴陶陷陬雀雪雩章竟頂頃魚鳥鹵
B3 C 0	鹿麥麻傢傍傳備傑傀傖傘傚最凱割劃
B3 D 0	創剩勞勝勛博厥啻喀喧啼喊喝喘喂喜
B3 E 0	喪喔喇喋喃喳單喟唾喲喚喻喬喱啾喉
B3 F 0	喫喙圍堯堪場堤堰報堡堝堠壹壺奠

	0 1 2 3 4 5 6 7 8 9 A B C D E F
B4 1 0	婷媚婿媒媛媧孳孱寒富寓寐尊尋就嵌
B4 5 0	嵐嵫嵇巽幅帽幀幃幾廊廁廂廄弼彭復
B4 6 0	循徨惑惡悲悶惠悒愣惶愕惰惻惴慨惱
B4 7 0	愎惶愉愀愒戟扉掣掌描揀揩揉揆揍
B4 8 0	
B4 9 0	
B4 A 0	插揣提握揖揭揮捶援揪換摒揚揹敞
B4 B 0	敦敢散斑斐斯普晰晴晶景暑智晾晷曾
B4 C 0	替期朝棺棕棠棘棗椅棟棵森棧棹棒棲
B4 D 0	棣棋棍植椒椎棉棚楮棻款欺欽殘殖殼
B4 E 0	毯氮氣氫港游湔渡渲湧湊渠渥渣減湛
B4 F 0	湘渤湖渺渭渦湯渴湍渺測湃渝渾滋

	0 1 2 3 4 5 6 7 8 9 A B C D E F
B5 1 0	溉渙湎湣湄湲湩湟焙焚焦焰無然煮焜
B5 5 0	牌特犀猶猥猴猩琺琪琳琢琥琵琶琯
B5 6 0	琛琦琨甥甦畫番痢痛痣痙痘痞痠登發
B5 7 0	皖皓皴盜睏短硝硬硯稍稈程稅稀窘
B5 8 0	
B5 9 0	
B5 A 0	窗窖童竣等策筆筐筒答筍筋筏筑粟
B5 B 0	粥絞結絨絕紫絮絲絡給絢絰絳善翔翕
B5 C 0	耋眭肅腕腔腋腑腎脹腆脾腌腓腴舒舜
B5 D 0	菩萃菸萍菠菅萋菁華菱萇萄著萊菰萌菌
B5 E 0	菽菲菊萸萎萄菜萇菔菟虛蛟蛙蛭蛔蛛
B5 F 0	蛤蛐蛞街裁裂袱覃視註詠評詞証詁

	0 1 2 3 4 5 6 7 8 9 A B C D E F
B6 1 0	詔詛詐詆訴診訶詖象貂貯貼貳貽賁費
B6 5 0	賀貴買貶貿貸越超趁跎距跋跚跑跌跛
B6 6 0	跆軻軸軼辜逮逵週逸進逶鄂郵鄉郾酣酊
B6 7 0	酥量鈔鈕鈣鈉鈞鈍鈐鈇鈑閔閏閧閉
B6 8 0	
B6 9 0	
B6 A 0	閒閒閎隊階隋陽陽隆隍陲隄雁雅雄
B6 B 0	集雇雯雲韌項順須飧飪飯飩飲飭馮馭
B6 C 0	黃黍黑亂傭債傲傳僅傾催傷傻傯僇剿
B6 D 0	剷剽募勦勤勢勣匯嗟嗨嗓嗦嗎嗜嗇嗑
B6 E 0	嗣嗤嗯嗚嗡嗅嗆嗥嗉園圓塞塑塘塗塚
B6 F 0	塔填塌塭塊塢塒塋奧嫁嫉嫌嫦媽媼

	0 1 2 3 4 5 6 7 8 9 A B C D E F
B7 1 0	媳媛媲嵩嵯幌幹廉廈弒彙徬微愚意慈
B7 5 0	感想愛慧愁愈慎慌慄慍愾愴愧愍愆愷
B7 6 0	戡戢搓搾搞搪搭搽搬搏搜搔損搶搖搗
B7 7 0	搆敬斟新暗暉暇暈暖暄暘暍會榔業
B7 8 0	
B7 9 0	
B7 A 0	楚楷楠楔極椰概楊楨楫楞楓楹榆楝
B7 B 0	楣楛歇歲毀殿毓毽溢溯滓溶滂源溝滇
B7 C 0	滅溥溘溼溺溫滑準溜滄滔溪溧溴煎煙
B7 D 0	煩煤煉照煜煬煦煌煥煞煆煇煖爺牒猷
B7 E 0	獅猿猾瑯瑚瑕瑟瑞瑁琿瑙瑛瑜當畸瘀
B7 F 0	瘀瘁瘋瘕瘖瘧瘠瘟瘧瘡盥睛睫睦睞督

	0 1 2 3 4 5 6 7 8 9 A B C D E F
B8 1 0	睹睪睬睜睥睨睢矮碎碰碗碘碌碉硼碑
B8 5 0	碓硿祺祿禁萬禽稜稚稠稔稟稞窟窠筷
B8 6 0	節筠筮筧粱粳粵經絹綑綁綏條置罩罪
B8 7 0	署義羨群聖聘肆肄腱腰腸腥腮腳腫
B8 8 0	
B8 9 0	
B8 A 0	腹腺腦舅艇蒂葷落萱葵葦葫葉葬葛
B8 B 0	萼萵葡董葩葭葆葷虞虢蛹蜓蜈蜇蜀蛾
B8 C 0	蛻蜂蜃蜆蜊衙裟裔裙補裘裝裡裹裕裒
B8 D 0	覜解詫該詳試詩詰誇詼詣誠話誅詭詢
B8 E 0	詮詬詹詻詫訣摹貊貉賊資賈賄賮賃賂
B8 F 0	賅跡跟跨路跳跺跪跤跦躲較載軾輊

	0 1 2 3 4 5 6 7 8 9 A B C D E F
B9 1 0	辟農運遊道遂達逼違遐遇遏過遍遑逾
B9 5 0	遁鄒鄗酬酪酩釉鈷鉗鈸鈽鉀鈾鉛鉋鉤
B9 6 0	鉑鈴鉉鉍鉅鈹鈿鉚閘隘隔隕雍雋雉雊
B9 7 0	雷電雹零靖靴靶預頑頓頊頒頌飼飴
B9 8 0	
B9 9 0	
B9 A 0	鉋飾馳馱馴髡鳩麂鼎鼓鼠僧僮僥僖
B9 B 0	僭僚僕像僑僱僎僩兢凳劃劂匱厭嗾嘀
B9 C 0	嘛嘗嗽嘔嘆嘉嘍嘎嗷嘖嘟嘈嘌嘍嘽團圖
B9 D 0	塵塾境墓塾墊塹墉壽夥夢夤奪奩嫡嫦
B9 E 0	嫩嫗嫖嫘嫣孵寞寧寡寥實寨寤寞察對
B9 F 0	屢嶄嶇幛幣幕幗幔廓廖弊彆彰徹慇

	0 1 2 3 4 5 6 7 8 9 A B C D E F
BA 1 0	愿態慷慢慣慟慚慘慵截撇摘摔撤摸摟
BA 5 0	摺摑摧摴摭摞敲斡旗旖暢暨暝榜榨榕
BA 6 0	槁榮槓構榛榷榻榫榴槐槍榭槌榦槃榣
BA 7 0	歉歌氳漳演滾漓滴漩漾漠漬漏漂漢
BA 8 0	
BA 9 0	
BA A 0	滿滯漆漱漸漲漣漕漫漯漱漪漚漁滲
BA B 0	漉滷熔熙煽熊熄熒爾犒犖獄獐瑤瑣瑪
BA C 0	瑰瑭甄疑瘧瘍瘋瘉瘓盡監瞄瞰瞥瞳磁
BA D 0	礫碧碳碩碣禎福禍種稱窪窩竭端管箕
BA E 0	箋箜算箝箔箏箸箇箄粹粽精綻綰綜綽
BA F 0	綾綠緊緞網綱綺綢綿綵綸維緒緇綬

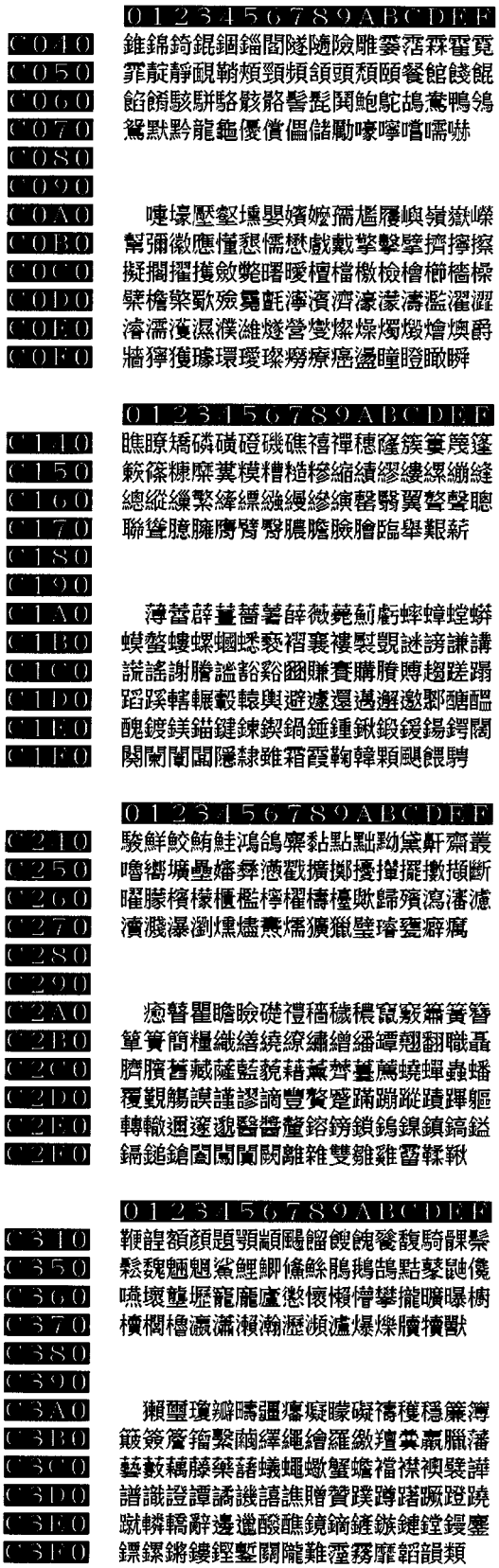
	0 1 2 3 4 5 6 7 8 9 A B C D E F
BB 1 0	罰翠翡翟聞聚肇腐膀膏膈膊腿膂臧臺
BB 5 0	與舔舞艋蓉蒿蓆蓄蒙蒞蒲蒜蓋蒸蓀蓓
BB 6 0	蒐蒼蓑蓊蜿蜜蜻蜢蜥蜴蜘蝕蜷蜩裳褂
BB 7 0	裴裹裸製裨褚褐誦誌語誣認誡誓誤
BB 8 0	
BB 9 0	
BB A 0	說誥誨誘誑誚誧豪貍貌賓賑賒赫趙
BB B 0	趕跼輔輒輕輓辣遠遘遜遣遙遞遢遝遛遨
BB C 0	鄙鄘鄞酵酸酷酴鉸銀銅銘銖鉻銓銜銨
BB D 0	鉼銑閡閨閩閣閥閤隙障際雌雒需靼鞅
BB E 0	韶頗領颯颱餃餅餌餉駁骯骰髦魁魂鳴
BB F 0	鳶鳳麼鼻齊億儀僻僵價儂儈儉儅凜

	0 1 2 3 4 5 6 7 8 9 A B C D E F
BC 1 0	劇劈劉劍劊勰厲嘮嘻嘹嘲嘿嘴嘩噓噎
BC 5 0	噗噴嘶噣嘯噻噌噠噲增墳墜墮墩墦播奭嬉嫻
BC 6 0	嬋嫵嫗嬈嬉寬審寫層履嶝嶔幢幟幡廢
BC 7 0	廚廟廝廣廠彈影德徵慶慧慮慝慕憂
BC 8 0	
BC 9 0	
BC A 0	感慰慫慾憧憐憫憎憬憚憤憔憮戮摩
BC B 0	摯摹撞撲撈撐撰撥撓撕撩撒撮播撫撚
BC C 0	撬撙撢撳敵敷數暮暫暴暱樣樟槨樁樞
BC D 0	標槽模樓樊槳樂樅槭樑歐歎殤毅毆漿
BC E 0	潼澄潑潦潔澆潭潛潸潮澎潺潰潤澗潘
BC F 0	滕滓濮潟熟熬熱熨牖犛獎獗瑩璋璃

	0 1 2 3 4 5 6 7 8 9 A B C D E F
BD 1 0	瑾璀畿瘠瘵瘟瘤瘦瘡瘢皰皺盤瞎瞇瞌
BD 5 0	瞑瞋磋磅確磊碾磕碼磐稿稼穀稽稷稻
BD 6 0	窯窮箭箱範箴篆篇篁箠篌糊締練緯緻
BD 7 0	緘緬緝編緣線緞緩綞緙緲緹罵罷羯
BD 8 0	
BD 9 0	
BD A 0	翩耦膛膜膝膠膚膘蔗蔽蔚蓮蔬蔭蔓
BD B 0	蔑蔣蔡蓿蓬蔻蓿蔆螂蝴蝶蝠蝦蝸蝨蝙
BD C 0	蝗蝌蝓衛衝褐複褒褓褕褊誼諒談諄誕
BD D 0	請諸課諉諂調誰論諍諑誹諛豌豎豬賠
BD E 0	賞賦賤賬賭賢賣賜質賡赭趟趣踫踐踝
BD F 0	踢踏踩踟踡踞躺輝輛輟輩輦輪輜輞

	0 1 2 3 4 5 6 7 8 9 A B C D E F
BE 1 0	輥適遮遨遭遷鄰鄭鄧鄱醇醉醋醃鋅銻
BE 5 0	銷鋪銬鋤鋁銳銼鋒鋇鋰銲閭閱霄霆震
BE 6 0	霉靠鞍鞋鞏頡頫頜颳養餓餒餘駝駐駟
BE 7 0	駛駑駕駒駙骷髮髯鬧魅魄魷魯鴆鴉
BE 8 0	
BE 9 0	
BE A 0	鴃麩麾黎墨齒儒儘儔儐儕冀冪凝劑
BE B 0	劓勳噙噫噹噩噤噸噪器噥噱噯噬噢噶
BE C 0	壁墾壇壅奮嬪嬴學寰導彊憲憑憩憊懍
BE D 0	憶憾懊懈戰擅擁擋撻撼據擄擇擂操撿
BE E 0	擒擔擊整曆曉暹曄曇暸樽樸樺橙橫橘
BE F 0	樹橄橢橡橋橇樵機橈歙歷氅濂澱澡

	0 1 2 3 4 5 6 7 8 9 A B C D E F
BF 1 0	濃澤濁澧澳激澹澶澦澠濕熾燠燐燒燈
BF 5 0	燕燾燎燙燜燃燄獨璜璣璘璟璞瓢甌甕
BF 6 0	癆癐癘癟瞠瞞瞟瞥曆磚磧禦積穎
BF 7 0	穆穌穋窺篙簑築篤篛篡篩篦糕糖縊
BF 8 0	
BF 9 0	
BF A 0	縑縈縛縣縞縝縉縚縟羅羲翰翱翩腾膳
BF B 0	膩膨臻興艘艙蕊憲蕨蕩蕃蕉蕭蕪蕞
BF C 0	螃螟螞螢融衡褪褲褥褫褡親覦諦諺諫
BF D 0	諱謀諜諧諮諾謁謂諷諭諳諶諼豫豭貓
BF E 0	賴蹄踱踴蹂蹤蹣蹟蹠輻輯輸輳辨辦遵遴選
BF F 0	遲遼遺鄴醒錠錶鋸錳錯錢鋼錫錄錚


0 1 2 3 4 5 6 7 8 9 A B C D E F
C040 錐錦錡錮錙閻隧隨險雕霎霑霖霍霓
C050 罪靛靜靦鞘頬頸頻頷頭頽顋餐館餞餓
C060 餡餬駭駢駱骸骼髻髭鬩鮑駝鴪鴦鴨鴒
C070 鴛默黔龍龜優償儡儲勵嚎嚀嚊嚅嚇
C080
C090
C0A0 嚏壕壓壑壜嬰嬪嬬孺尷屢嶼嶺嶽嶸
C0B0 幫彌徽應懂懇懦懋戲戴擎擊擘擠擰擦
C0C0 擬擱擢擭斂斃曙曖檀檔檄檢檜櫛櫓橡
C0D0 檠檐檠歟殮毚氈濘濱濟濠濛濤濫濯濵
C0E0 濺濡瀆濕濮濰燧營燮燦燥燭燹燻爀爵
C0F0 牆獰獲瑯環瑷璨癆療癌盪瞳瞪瞰瞬
0 1 2 3 4 5 6 7 8 9 A B C D E F
C140 瞧瞭矯磷磺磴磯礁禧禪穗窿簇簍篋篷篾
C150 簌篠糠糜糞糢糟糙糝縮績繆縷縲縹繃縫
C160 總縱縴縶縹縵縹繈縵縻繯繰翼聱聲聰
C170 聯聳臆臃臍臀臂膿膽臉膾臨舉艱薪
C180
C190
C1A0 薄薈薛薹薤薯薜薇薨薊虧蟀蟑蟐蟒蠑
C1B0 蟆螯螻螺蟈蟋褻褶襄褸褽覬謎謗謙講
C1C0 謊謠謝謄謐豁谿豳賺賽購賸賻趨蹉蹋蹈
C1D0 蹊蹌軫輾轂轍轎轔與避遽還邁邂邀鄂醣醪
C1E0 醜鍍鎂錨鍵鍊鍥鍋錘鍾鍬鍛鍰鍚鍔闊
C1F0 闋闌闈閾隰隸雖霜霞鞠韓顆颶餵騁
0 1 2 3 4 5 6 7 8 9 A B C D E F
C240 駿鮮鮫鮪鮭鴻鴿麋黏點黜黝黛軒齋叢
C250 嚕嚮壙壘嬸彝懣戳擴擲擾攆擺擻擷斷
C260 曜朦檳檬櫃檻檸櫂檮檯歟歸殯瀉瀋濾
C270 瀆濺瀑瀏燻燼燹燿瀛獵璧璿甕癖癘
C280
C290
C2A0 癒癤皭瞻瞼礎禮穡穢穹窺竅簫簧簪
C2B0 簞簣簡糧織繕繞繚繡繒繙罈翹翻職聶
C2C0 臍臏舊藏薩藍藐藉薰薺藝藟藩蟯蟬蟲蟠
C2D0 覆覲觴謨謹謬謫豐贅蹙蹣蹼蹤蹟蹕軀
C2E0 轉轍邇邃邈醫醬釐鎔鎊鎖鎢鎳鎮鎬鎰
C2F0 鎘鎚鎗閹閾閼閻閥離雜雙雛雞雷鞣鞦
0 1 2 3 4 5 6 7 8 9 A B C D E F
C340 鞭韲額顏題顎顓颺餾餿餽餮馥騎髁鬃
C350 鬆魏魎魍鯊鯉鯽鰈鰌鰕鶇鶫鵁鵆鵈點麈鼬儻
C360 嚥壞壟壢寵龐廬懲懷懶懵攀攏曠曝櫥
C370 櫟櫑櫓瀝瀟瀨瀚瀝瀕瀘爆爍牘犢獸
C380
C390
C3A0 獺璽瓊瓣疇疆癟癡矇礙禱穫穩簾簿
C3B0 簸簽簷籀繫艫繹繩繪羅繳羶羲耀臘藩
C3C0 藝蘂藤藥藷蟻蠅蠍蠟蠣蟶蠢蠡蠱襠襟襖襞譁
C3D0 譜識證譚譎譏譆譙贈贊蹼蹲躇蹶蹬蹺蹠
C3E0 蹴轔轎辭邊邋醱醮鏡鏑鏟鏃鏈鏜鏝鏖
C3F0 鏢鏍鏘鏤鏗鏨關隴難霪霧靡韜韻類
0 1 2 3 4 5 6 7 8 9 A B C D E
C140 願顛颼饅饉騖騙鬍鯨鯧鯖鯛鶲鵡鵲鵪鵬
C150 鵬麒麗麓麴勸嚧嚷嚶嚴嚼壞孃孺孽寶
C160 巉懨懺攘攔攙曦朧櫳瀾灑瀲爐獻瓏癢
C170 癪礦礪攀礫寶競籌籃籍糯糰辮繽繼
C180
C190
C1A0 纂罌耀臚艦藻藹蘑藺蘆蘋蘇蘊蠔蠕
C1B0 襤覺觸議譬警譯譟譫贏贍躉躁躅躂醴
C1C0 釋鐘鐃鏽鬮霰飄饒饑馨騫騰騷騸鰓鰍
C1D0 鹹麵黨鼯齟齣齡儷儸囁囀囃囂孌屬巍懼
C1E0 懾攝攜斕曩櫻欄櫪欐欖灑灤爛犧瓖瓔癩曬
C1F0 籐纏續纛蘗蘭蘚蠣蠢蠡蠟襪襬覽譴
0 1 2 3 4 5 6 7 8 9 A B C D E F
C540 護譽贓躊躍躋轟辯醺鐮鐳鐵鐺鐸鐲鎬
C550 闢霸霹露響顧顥饗驅驃驀騾髏魔魎鰭
C560 鑌鶯鶴鷄鷁黌黯鼕齏齧齬齪龕亹亻
C570 孿巔毚彎懿攤權歡灕灘玀玨疊癲癬
C580
C590
C5A0 禳籠籟聾聽臟襲襯觼讀贖贓躔躙躪竊轡
C5B0 酈鑄鑑鑒霽霾韃韁顫饕驕驍髒鬚鰲鰱鰹
C5C0 鰾鰻鷓鷗鼇齬齷龔囌巉灨攢欟灩爨欐欝
C5D0 玀霧鑚籣籤纓纖纔臢臙蘢蘿蠶變邐邏鑄鑠
C5E0 鑞鑷鬣顯饜驚驛驗髓體鬻鱈鱗鱖鷲鱚
C5F0 黴噶壩攬灞癱癲亹罐羈聾聶襴讌讎
0 1 2 3 4 5 6 7 8 9 A B C D E F
C640 識艷贛醸鑪靂靈靄韆蟶驟鬢魘鷙鷹鷺
C650 鹼鹽鼇齷齲廳欖灣籬籠蠻觀躡釁鑲鑰
C660 顧饒髖鬆黌灤矚讚鑷韉驢驥纜讜躪釅
C670 鑽鑾鑼鱸鱗驫鱧鱷鸚爨驪鬱鸛鸞籲
C680
C690
C6A0 ぁあぃいぅうぇえぉおか
C6B0 がきぎくぐけげこござさざしじすずせ
C6C0 ぜそぞただちぢっつづてでとどなに
C6D0 ぬねのはばぱひびぴふぶぷへべぺほ
C6E0 ぼぽまみむめもゃやゅゆょよらりる
C6F0 れろゎわゐゑをんァアィイゥウェ
0 1 2 3 4 5 6 7 8 9 A B C D E F
C740 エォオカガキギククグケゲコゴサザシ
C750 ジスズセゼソゾタダチヂッツヅテデ
C760 トドナニヌネノハバパヒビピフブプ
C770 ヘベペホボポマミムメモャヤュユ
C780
C790
C7A0 ョヨラリルレロヮワヰヱヲンヴヵ
C7B0 ヶДЕЁЖЗИЙКЛМУФХЦЧ
C7C0 ШЩЪЫЬЭЮЯабвгдеёж
C7D0 зийклмнопрстуфхц
C7E0 чшщъыьэюя①②③④⑤⑥⑦
C7F0 ⑧⑨⑩(1)(2)(3)(4)(5)(6)(7)(8)(9)(10)

	0 1 2 3 4 5 6 7 8 9 A B C D E F
C8 10	
C8 50	
C8 60	
C8 70	
C8 80	
C8 90	
C8 A0	
C8 B0	
C8 C0	
C8 D0	
C8 E0	
C8 F0	

	0 1 2 3 4 5 6 7 8 9 A B C D E F
C9 10	乂七凵匚厂万丌毛亍口兀中仌丐冇与
C9 50	孔亓仂仉仈允匆卬攻北及夬尐市旡殳
C9 60	毋气月卅井仨仜仕仡仝仚刊匝册圩圣
C9 70	夘夯宁究尒尻岁岔帄庀仄忉戊扐气
C9 80	
C9 90	
C9 A0	汞汎汍汐犮犰亚内妀防伎优伙作伉
C9 B0	伶伀价伀伝佈佗佾仵佛伋伒伭刘刨刖
C9 C0	劭囫匹卍厚吁囡囟圯圪均祟改奸妅奾
C9 D0	奾奸妣孖尕灺岨岜岚岫完幵庄异羋犴
C9 E0	忕忙忏扜扞扤抁抡抆抈抃抪旱杳杶杴
C9 F0	杹杽杷杌杗杶杹氖汆汜汏汊汔汍汐

	0 1 2 3 4 5 6 7 8 9 A B C D E F
CA 10	汌灱牠犴狉玎甬乩穻网艸芊芬芃芳卢
CA 50	两邙邢邦邛邝阢阪阡阣佖佯佢佸体佈
CA 60	佺伂侠侅佁佘依侀佻侃侅凌剃刞剓劭
CA 70	勀匆卣郤厎厔呔咦咙呿哎呅吥吋吭
CA 80	
CA 90	
CA A0	吽咐昀呅吟呇囤囧囥坻坽垒坲坋埜
CA B0	夆奂奸妄妠妳妤妧妩奴妩妡奸宷宅尬
CA C0	岍岟岈岥岫岭罟岆岟岑坐帊帗度庖序
CA D0	庴庁弁弛彸彶忒忐忭忱忮忡忤忣
CA E0	忺忯怕忻怀忪闩扑抌抗抚抎抈扱抵
CA F0	抌拗拐扷扽拎扮攸旰旲昀昊昆杆杇

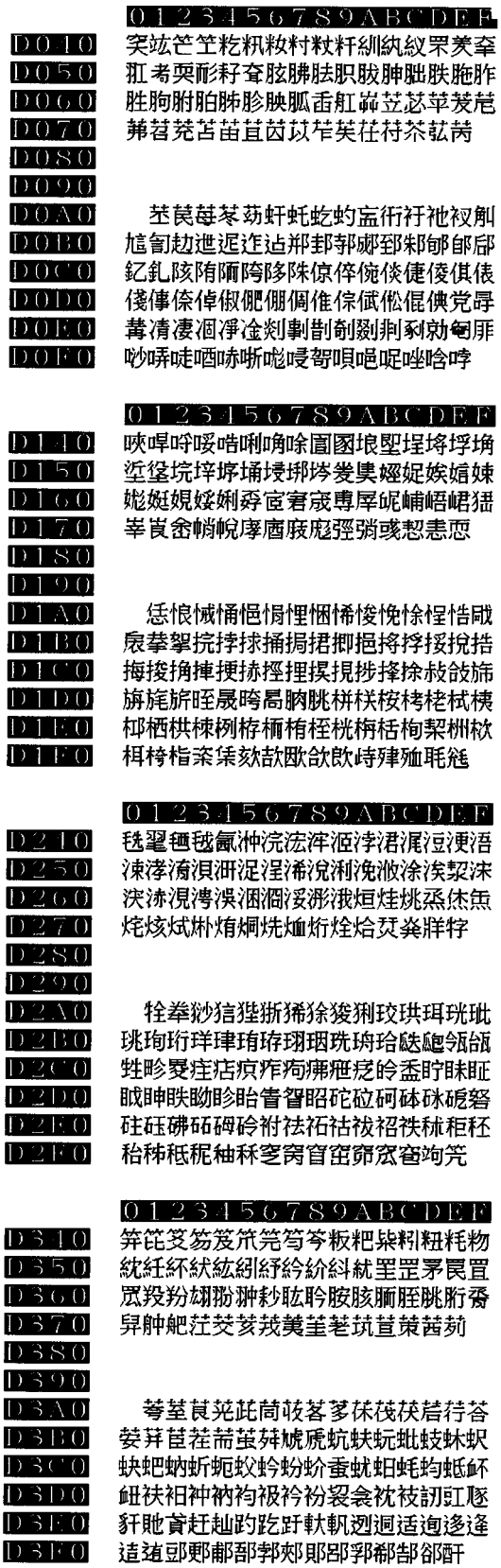
	0 1 2 3 4 5 6 7 8 9 A B C D E F
CB 10	杌杕杭杈杶杼杞机毒氙氚汿汫汧汭沇
CB 50	沏沢沍汩汕汭沆沏汿汳汊汴沘灴灺
CB 60	牣狃犴狌狆狣狣狂玕玗玓玥珲玨町粵疔
CB 70	疙阜礽耘肋肩胚肒肜肴芊芏芩芑芓芋
CB 80	
CB 90	
CB A0	芊芃芜豸迟迆邡邡邓邦邡邠邡阯阨阭
CB B0	陇弗侂佼侅侠侀倩倢侣侄倱倢倗侴冼
CB C0	侚侥侁佸侐侔侫俊侻侕侶侶佮采冼冶
CB D0	刖刲刳剀剔勋勂匍匽屉屈屋吆呿咁哎
CB E0	哫呫哼咀哨呬呴呦呦哈呯哏呅哶呿吟
CB F0	囝圀圩垹垀块垌堣垀垢坻坳垄垏

	0 1 2 3 4 5 6 7 8 9 A B C D E F
CC 10	坨坽夌奇妵妹甜姎妲姘姁妶娀妊妣
CC 50	妽妖妗娶婁孢孳宓宕屎届岮岟岠岵岓
CC 60	岨岬岟峋岭岩第岑岑峖岶峋岜帴帔帙
CC 70	弨弦驸弤条徂彾彽态氖怵怦怙恆恨
CC 80	
CC 90	
CC A0	戙怊怗怳怚怞怬怢怍怉怮怑怫怄怪
CC B0	怜棻脰抗挸拑抾抪拻拚挧抳拴挸挟
CC C0	抶放斫炕昉昅昄盼昭昞旻昃香旧昅旽昤
CC D0	盼曾胤枒栎枎枒杶杻杶枘栘栲栳枌杹
CC E0	栞栺栭枴枒极柣栘栲昡殀殉垦氤沓泬
CC F0	泫泮泙沶泏沐淢泼渺洞洎洵洟泋沛

	0 1 2 3 4 5 6 7 8 9 A B C D E F
CD 10	洫泝涔尬林枒泞涸洇沛氾泅泩泩汹
CD 50	炔炘炅炵炆炄炑炖炻欴焚牪狖狻狉
CD 60	狌狒狃狙狌狉玤玾玤玸玷玥玵砣珮珮
CD 70	盯昇畠聿疝虾盱盱盵矸矼砆矻砐砑
CD 80	
CD 90	
CD A0	砑衪衧秏穻穻笏籵釭耵肭肮胯胅肼
CD B0	肭舠芟芫芫苪芚芮芮芣芧芙芟芠芨
CD C0	芠苓芠芃芰芍芒虰虻蚴虮豕远迁迋迍
CD D0	达迆迭逖郦郜邵郃郜陔阽阼陋陋倀倞
CD E0	倀倍倕倨倱倦倩倀倭倱倱倢倢倢侃
CD F0	剄剉勀勂匽卼厍屘厙厘咺哃咭哑哏

	0 1 2 3 4 5 6 7 8 9 A B C D E F
CE 10	哃苟哫昧昨唔哅哆昦砦哲咄哞哅
CE 50	垵垞垏垣垌垹堍垛堊埱埭垏垥垚堊壴
CE 60	复爹姡姞姮娀姱姝姣姥姽姎姻娟婀
CE 70	娌妦姵婀姾裂叟寇屠峖峂峗峒岰
CE 80	
CE 90	
CE A0	嵏崣峯峖垦峻峓峔峮峈峪峖岷胥峨脊
CE B0	帡帢希帛帑屏庳庢庇庞庥弇弯豖徜恋
CE C0	悠恔恲恞悟恪悃悁恛恍恄悇恣恄悚
CE D0	恛恮庴扁肇挍挋拸挎挼拯拫搦挏挌拸拶
CE E0	挀挖掖揀抇挀挋战殴斫游衪眩晡昵昜
CE F0	昇晲昳晌昜晉昂昳昜朏胸柁柲枺抹

	0 1 2 3 4 5 6 7 8 9 A B C D E F
CF 10	柜柮柸柘柀枷柅佛柤栦枧栻枴栭柮
CF 50	栻柂枹桮柧棗棠柼柆柆桠柯枯柦桲栘
CF 60	柊柃柪柒欹殂殄投毖毘驾氠氦洨洴洭
CF 70	洟洼洿洒洚泏泖洄洙洛洚洑洠洔洟
CF 80	
CF 90	
CF A0	浩涛涇浹洏渜涸浄浰洈汴炷炟
CF B0	烷炙煞烶烨炵炯牉炤钵铀锪垏臭猜
CF C0	狻猗狟狪狦狣玅琉珂珈珅玹玾玵琍琉
CF D0	玿玵玾珶珀玸珧珮贇觭畋疵疵婒盅
CF E0	眈眩昀眅眊昀盼昕矧矢砆砑砒砆砐矽
CF F0	砜耆砑砐祊祌祋祆祢秕种秏秖秎窕



	0 1 2 3 4 5 6 7 8 9 A B C D E F
DS10	鈁釷釨釱鈇閆閈陼陼隑陶陯陰雔釕頇飥
DS50	嶋傛傕傞傞傋傢傢傞傌傎傝傑傚傒傒傕
DS60	舐滄篛匍厲匰喨嗖嚏嗆嘟嗚唔嚅嚩嗜啙
DS70	喵喁煦嗋喤喡羿罔嗿喡嗶嗝圌堐堷
DS80	
DS90	
DSA0	墮墏塙堣堨埵塹墜堎崠塭堳堿堷墱墐塽
DSB0	堰堭堣淦熹媧媟媒媚媦媦婎媦媦媬媬媬
DSC0	嫦媮娷媄媊媗嫁媋媎媦嫉媜媦媏媓媟
DSD0	鴐盜寋寔寖寘寎尌壛嵼嵷嵫嵽嵋嵎嵣嵽
DSE0	嵑嵎嵷嵸崴嵓嵒崽崩粌嶂崹嶁嶁嵽嵲嵣
DSF0	粀歲幄幀儦徦徥徫憩悥忿恚惣悰慗慼憧

	0 1 2 3 4 5 6 7 8 9 A B C D E F
D910	慲慍愖慲惵愓愕惼愾慛愠愔慖愐愄愌
D950	慢廈揫霡掰揎揕揨揨揯揤揳揳搵揱揱揶
D960	揲搥摡搦掾揝揜揄揄揎搋揇揱揱揣揗揨
D970	揗揙敓敓斀斀敘故斂斌舋斟旐旐旅
D980	
D990	
D9A0	睕睟睠睚睽暘暡晲晉椌棓棓椓棳棳棳棳
D9B0	棯棱棳棖棷棫棤棟棳棳棡棡棋棌棌棳
D9C0	梃椑棯棆棁聚棑棎棻棕棕棫棳棣棤棡
D9D0	棡棦棚棑棡棔棚棢枻枻欹欶欹欶殏殗
D9E0	殙殕殽稚斀氂氣淼湆淯淳淳滀滊渓澮湅
D9F0	湢澲漾淊潛滷澳潤澋澑澱淄淊滑滇

	0 1 2 3 4 5 6 7 8 9 A B C D E F
DA10	溴澄澖洭澠澳澆淒淞澗澘澁澍澦澶澦澾
DA50	澼濰澦湦湦淄渙瀛焠焞焯烻煞燊熙焥
DA60	焛焲焟焆焜閌牋掌犈犉犉犆犋獏獯
DA70	猢猱猳猧猲獝獮獵獵獵粀琮琬琰琸瑳
DA80	
DA90	
DAA0	琚瑬瑔瑁琾琣瑆瑁珼琲琲琲琲琲琲琲
DAB0	痚痛痦瘀瘠痤痦痦痦瘏瘖瘏瘏瘏瘏瘏
DAC0	睎睋睌酁殗硃磃磍砣硱硪碘碆碑碑
DAD0	硌硢褫褯禋禓稂稀稃稐稘稜寧竦竫笑笣
DAE0	筴筈筌筎筆筘笏笨粞粨粡紋絃絣絓絣鉛
DAF0	絧綑綩絫絮絮絒紹絩絲絟術鉼鈺罥

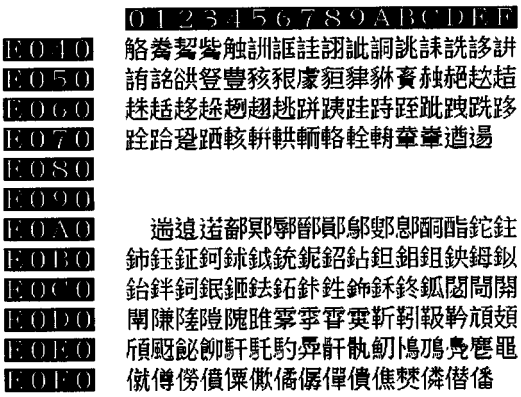
	0 1 2 3 4 5 6 7 8 9 A B C D E F
DB10	罗羦羭羨翎聒聒聒聒聒聒聒聒聒聒聒聒
DB50	臉脞亜皂戟窪瑊鳥舧觲觲舧舧舧舧舧舧
DB60	菟荽莞萭萻蓑蓽蓳蔽菽蓳鼓蒴萁菽莽
DB70	菸蔕菡蒠菎菖蔓棻葩萄莉萑蕈葯蓋
DB80	
DB90	
DBA0	蓊蕑菇螽荼萓蒮蒮蒮蒮蒮蒮蒮蒮蒮蒮
DBB0	荼蛘蛢蛦蛓蛚蛚蛚蛚蛚蛚蛚蛚蛚蛚蛚
DBC0	鉧衕衡袺裗袹袹裗裗裗裗裗裗裗裗
DBD0	覕覞覞舐艋詎詍詖詖詖詖詖詖詖詖詖
DBE0	詈詫詊詌詋貑貃貶貲貾餥趄趎趉
DBF0	跰趄跕跬跕跕跕跕跕跕跕跕跕跕跕

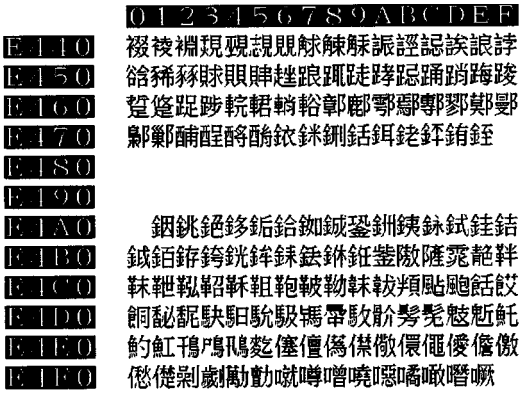
	0 1 2 3 4 5 6 7 8 9 A B C D E F
DC10	軟軓軮軥軵軛軡軫軱軱釜軠軺逭逴逶
DC50	鄆鄴鄄酈鄟鄭鄭酅酅鄀鄗鄗鄰酡酤酤
DC60	酢酮鈁鈀鈥鈃鈚鈇鈐鈌鈀鈑鈑鈲鈆斜
DC70	鈪鈇鉉鉬鈸鈪鈅鈖鉠鉠閌閌嘁隢隈
DC80	
DC90	
DCA0	隉隃隀雂雚雨雰靼靰靿靼靰靰靰靰靰
DCB0	嶜巭亂亶僖僞僆僮儡儻儃儃僮僮僽
DCC0	傯僋僉儗儉灌膀劓劓劉嗃嗛嗌嗜嗋嗊
DCD0	嗝殼嗊嗄嗩喿嗒喋啄嗋嗢嗖嗓嗲嗍嗋
DCE0	嗂圔塛塠塭墱塍墋墋墋墋墋墋墋墋墋
DCF0	墿墅壶娭嫄嫋嫩嫯嫸嫄嫉嫋媿嫈嫆

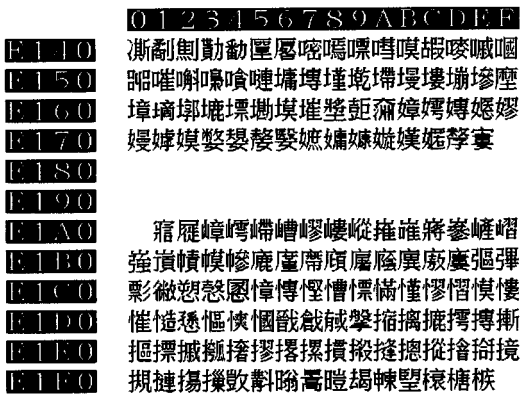
	0 1 2 3 4 5 6 7 8 9 A B C D E F
DD10	嫮嫀嫊嫉媓嫍嬰寖寘寙尟嶜嵣嵣嵵
DD50	嵍嵲嵬盦嵢嵧嵢巍甗幏幎幀幣廅鷹廆
DD60	廋廇豰徯徭憮憐憟憰憧憮憮憧慆慔慏
DD70	愩悘戩戧戝戛摮掣摙摙攂擩撗搒搒搔
DD80	
DD90	
DDA0	摐摃摲搕搐摍摭摍摍摍摍摍摍摍摍
DDB0	搯搦摛搗搗摍摝摙摙摙摙摙摙摙摙
DDC0	暌暕暲暨暊暗暔晁朠楦椻楝楢楪楪楪
DDD0	楅楪椹楂楗楸楑楑楑楑楑楑楑楑楑
DDE0	楑榗槾楯楝楱楽榮榣榣榣榣榣榣榣榣
DDF0	樟櫆櫺樘榯歍歜歜歊歍殛殽氈氈

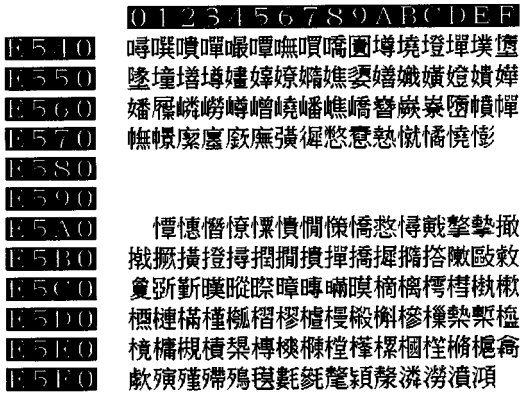
	0 1 2 3 4 5 6 7 8 9 A B C D E F
DE10	毻氈甋澱澞滆澔濛濂澐澆濛澦澦澦澦
DE50	澦澦澅滉澑澄澈澓瀖澑澦澦澦澦澦澦
DE60	澦潛溤澦澦澦澦澦澦澦澦澦澦澦澦
DE70	煁煝煢煑煽煽煽煽煽煽煽煽煽煽煽
DE80	
DE90	
DEA0	煄煽熨牏犍犌犢犐犎獏獯獑獑獑獑
DEB0	獑瑄璇璋瑒璩瑗璃璿瑜瑎瑂瑆瑍瓡
DEC0	韶甄甍塊畹曖晢瘡瘖瘚瘉癘癘癘癘
DED0	癘癘癇瘼癙皽盞睕睜睠睽瞁瞙瞙瞙
DEE0	瞗瞑瞷磍碇碚磋磍碄碄碄碄碄碄碄
DEF0	碀碖磿禗禍祽祹稓稙稙稙稙稙稙稙

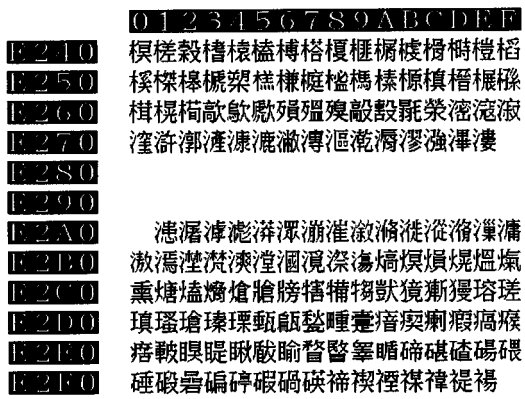
	0 1 2 3 4 5 6 7 8 9 A B C D E F
DF10	稛稐窣竄窖竽筽筷箄箐箂箂箂箂箂箂
DF50	箸箄箸箊粸粳粯綁綆綀綍綀綅綅綅
DF60	綃緣綌緜統絽綒罵罫羥罼翥羦羥翛
DF70	翟翍腤腠腷腜腤腥腷腷腰腠腶腤
DF80	
DF90	
DFA0	腫腡欁艉艄艂艂艂艂艂艂艂艂艂艂
DFB0	葥葑葙葵葜葥葚葚葙葴葴葴葴葴葴
DFC0	萺萴葦萼萷葙葴葴葴葴葴葴葴葴葴
DFD0	葎蓋紝葯蒐蒘普棻蓂蒘蒘蒘蒘蒘蒘
DFE0	葮蓋蜛蜄蜄蜄蜄蜄蜄蜄蜄蜄蜄蜄蜄
DFF0	蜅裲裎裍裎裞褒裌裯勷覞觟觟觟

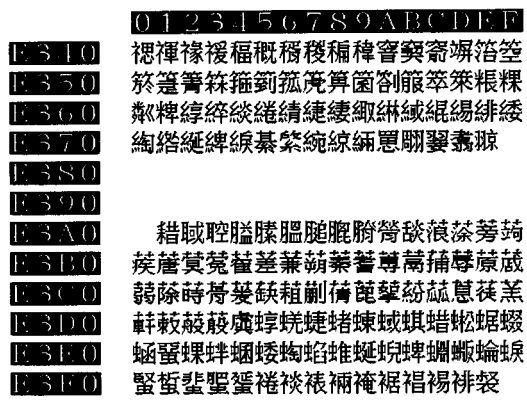


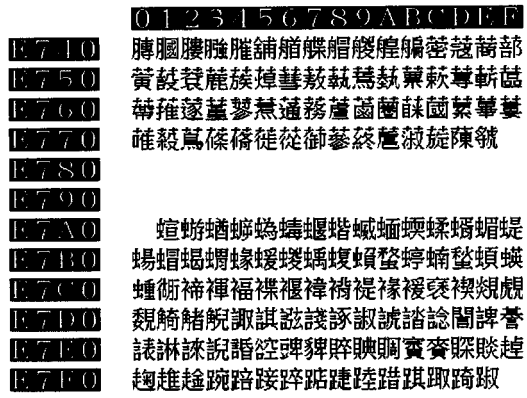












	0 1 2 3 4 5 6 7 8 9 A B C D E F
E810	踔踒踰踵踒踧踦輗輘輟輳輾輔輯輗遾
E850	遰遯遧遨鄯鄫鄪鄴鄙無鄘醅醆醊醐酻酳
E860	酮醀鋐鋃鋖鋾鋙鋯鋭鋮鋺鋘鋦鋏鋌鋋
E870	錯鋂鐵鋊鎥錩銅鋍錶鍊鋠鋹鋰鋧鋮
E880	
E890	
E8A0	鐫鋡鏊鏨鏗鬩鬮鬩鬨贕隢雒霤霈霖
E8B0	靚鞊鞎鞊鞚鬊頍頷頸頩頯顁顊顗婸
E8C0	餈餚餔餇餗餕駿駍駪駓駐駔駟駒駉駖貽貂
E8D0	駹駕骳髦髫髽髺髮髻魆魊魷魨魧魶魦魡
E8E0	魰魨魤魬鴆鴣鴉鴄鴟鴒鴇鴳鴘鴠鴝鴄
E8F0	鷹黓鴈鴬鵅鵊鵁鵆鵝鵝鵊鵅鵈鵀鵑

	0 1 2 3 4 5 6 7 8 9 A B C D E F
E910	嚾嚖噣噭噲噎噉噦圞圛墏墩墉墂墠墯墼壑
E950	壘嬗嬙嬛嬡嬔嬓嬐嬖嬨嬚嬈嬗嵩嶬嶇
E960	嶩嶧嶬嶜嶮嶚嵥嵎嶌巃嶭嶔嵒嶩嶬嶨嶪廩
E970	廯廦廨廥廧徼憼愁懋慬慺慛憾憿憰憛憺
E980	
E990	
E9A0	懤憯憩擗揭擐撽擉撽摯攁搌擲擙攇
E9B0	敿敲斢曈曒曖曊曋霵瞵暯暻翌膧樴橦
E9C0	橉橧槭樻樤檀樟橢櫪櫫樼櫂櫝櫹櫛櫏
E9D0	巕櫜檤檄樓撹榛槉穗橖樘檔橭橍橪櫙
E9E0	歖歟殬殫嚲嚇毆氄毷氈瀇瀎瀋瀆瀇瀌
E9F0	瀔潤瀎瀆瀡瀱瀕瀠瀣瀋瀇瀙瀌瀍瀎

	0 1 2 3 4 5 6 7 8 9 A B C D E F
EA10	灀灘澫澦澈澡澲澯澰燈燀燈燇燁燋燋
EA50	燊燇燏爚燜熼燸燧褽犝犣獦獷獹獬獵
EA60	獫獩瑿璚璠璔璒璐璀璣璩璟瓏瓖瓕瓐
EA70	瓁瘵瘛瘰皴盨瞚瞞瞝瞛瞉瞶瞳瞙瞙
EA80	
EA90	
EAA0	瞗磝磩磲磪磡磟磛磭磾磰磠磟磢磥磧
EAB0	磨穇窶窻窱窴窘篩篧筹箐篝篕篳篦篠篡
EAC0	篔篾篢篜篣篧篨糈糗糢糐糔糌糍綪綷綜
EAD0	綣綴綠綪綅綆綃縚縖縒縤縴縷縈縸
EAE0	罰罼罿羱罵耪艕羵膱膦膮膹膵膜膿臡
EAF0	臕臙臞臐臗臈臄臬臏臺膏膰膍膎膂

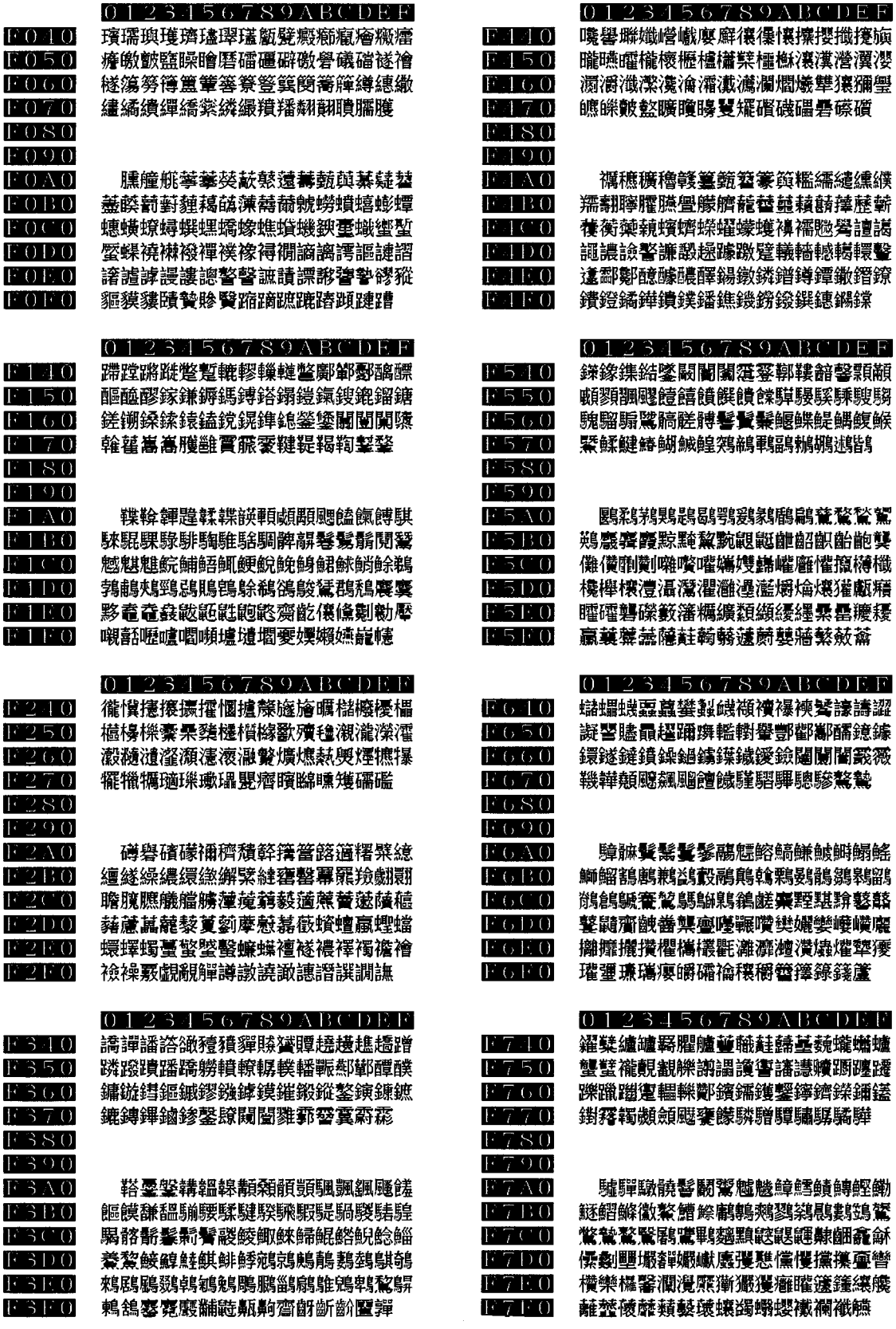
	0 1 2 3 4 5 6 7 8 9 A B C D E F
EB10	蘇蘵蘣蘼蘟蘠蘭蘚蘗蘘蘑蘄蘅蘋蘸
EB50	蘡蘗蘦蘜蘞蘧蘘蘇蘚蘢蘢蘠蘛蘙蘘蘚
EB60	蠊蠐蠙蠉蠆蠔蠍蠋蠊蠎蠏蠈蠅蠊蠉蠊
EB70	襓襪襄褒褮褧褭褰褒褩褣褥褦褥鸄鸆
EB80	
EB90	
EBA0	譚譖識譕譑譠譆諟諰諈譪譓譕譆譈
EBB0	諻貑貙貛賵賮賻賰賭賦賴賴趙趧踳蹌踾
EBC0	蹀蹅踶踢蹋蹍蹌蹎踰踿輶輮輬輞輥輤輖輶
EBD0	遶遹遝遣邋鄹鄐鄷酁醐醑酺酴醌鍺鍠錈
EBE0	錟錆鋋鍺錸錄鎩錣鍆鋼鍥鍆鋿鋼錎錍錕錄
EBF0	鋺鎛錓鋹鋷鋮鍛鍠鍬鋿鋺鋷鋿鍚鋌鍬鏵

	0 1 2 3 4 5 6 7 8 9 A B C D E F
EC10	鋷鋟鍎鑰鋻鏊鬨鬮鬩鬩鬩鬩鬩鬩鬧隩
EC50	雔霾霧霺鞙鎯鞚鏦鐩顝顈顁餤餟餧餦
EC60	酵駮駓駴駐駟駣駪駸駁駢骭骾髻髺
EC70	髁髒鬳鮀鮫鮛鮇鮭鮁鮞鮂鮓鮒鮐鮆鮎
EC80	
EC90	
ECA0	鮐鮈鴃鴪鴠鴞鴕鴢鴗鴒鴝鴝鴝駕鴪鴟鼇
ECB0	亹鼜麩麭黕黓齹鼏鼩儦儢儢儤儡儴儥
ECC0	嚓嚀嚍嚪嚄嚄嚀嚂嚃嚦壖壛壖壏壗孍
ECD0	黝嬤孀嬸嬙孃嬰孺孺嬃嬃嬙嬃徽徻憼
ECE0	壂憼懧懠懥懤懨懩攂攜攙攍攙攍戮戰
ECF0	屬旚曒檶檨橞檥櫂櫃櫏櫈櫸櫼櫬

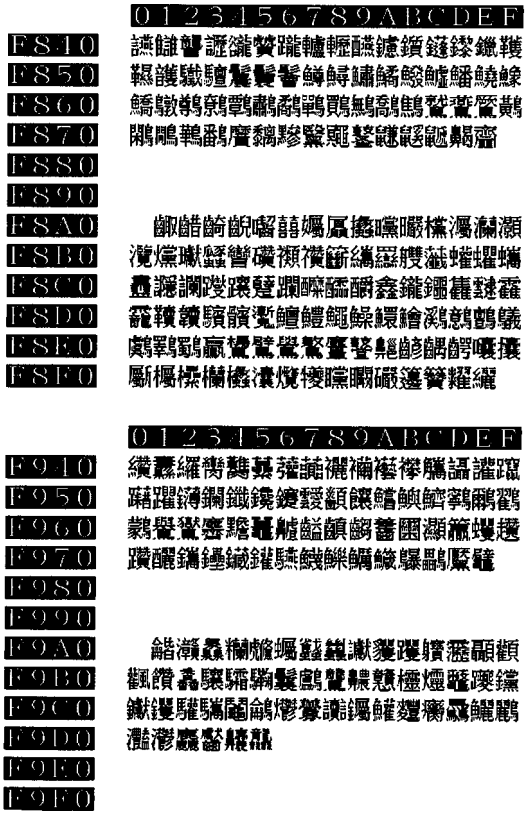
	0 1 2 3 4 5 6 7 8 9 A B C D E F
ED10	檕檥檨檑櫌櫚櫟櫼櫪櫹櫬櫪櫬櫪櫬
ED50	灂瀰瀙瀆瀛瀏瀡瀋瀔瀱瀣瀔瀔瀱瀱
ED60	煝煖熨獼獮獯邍璲璖璐璪璉璶璩瓶
ED70	甑甒甖瞬癃癈癙癚癗癇皤盩瞵瞢瞎瞷瞼
ED80	
ED90	
EDA0	瞴瞱瞨矰磳磽磭磰磾磼磲磪磾磲磾
EDB0	穖穈穚穖穘穗窾窺竄簉簏簣簧簟簫
EDC0	籍篋簋篳篥篧篚篗篹篻篽篴篲篲篹
EDD0	纑纔綷縵纈縸繹繩繯繖縩縚縗縰縰縻
EDE0	繾罅罌罍罋羶膼膝膜膕膗膙膓膕膕膘
EDF0	臒臗臍臟臛臅臆臌臎臏臉臈臇臂

	0 1 2 3 4 5 6 7 8 9 A B C D E F
EE10	賸賾賤賰賮賨賭賯賶賷賹賵賳賲賱賮
EE50	賅賻賺賽賾賸賵賮賶賷賹賵賳賲賱賮
EE60	蟷蠷蠆蠗蠔蠐蠓蠑蠙蠛蠍蠙蠛蠍蠙
EE70	螳螭螬螾螹螵螼螹螵螼螹螵螼螹螵
EE80	
EE90	
EEA0	謕謖謑謅謋謍謢謏謒謐謖謑謅謋謍
EEB0	謐謙豰豲豯豰豲豯豰豲豯豰豲豯豰
EEC0	轃轀遣遾鄭醚醢醒醙醫醒醝醢鎞鎃鄮
EED0	鍤鍖鍇鍞鍛鍶鍇鍞鍛鍶鍇鍞鍛鍶鍇鍞
EEE0	鍗鍾鎟鍔鏌鍷鍚鍑鍞鎝鍧鍷鍚鍑鍞
EEF0	鬮鬨鬧鬴隮隰隦霚霂霺霺龑龒龑

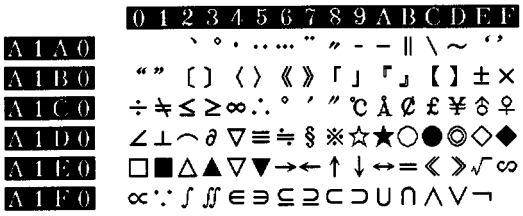
	0 1 2 3 4 5 6 7 8 9 A B C D E F
EF10	鞶鞠鞚韔鐵顁顉顊顜顁顉顊顜顁顉顊
EF50	餲餯餭餱餟餱餯餭餱餟餱餯餭餱餟
EF60	騆騕驂騃騑鬆鬘鬐鬏魈鮚鮨鮦鮪鮭鮦
EF70	鮥鯊鯖鯀鮹鮯鵝鵁鵅鵠鵝鵁鵅鵠鵝
EF80	
EF90	
EFA0	鶂鵙鵑鵊鵝鵞鵝鵑鵠鸏鸍鸍鸍鸍鸍
EFB0	鸍鼁鼂鼂鼃齌儱儡儼儮嚜嚜曝靨曠嚙
EFC0	爽爓屩屪巕幭櫯懘戇優優懱曝爓劉懫鬳
EFD0	儀擒據攆攕攇攐攆攕攇攐攆攕攇攐
EFE0	檳櫆檬檶櫚櫇櫌櫬歟毉氍灨灠灢灧
EFF0	灂瀎瀼瀇瀼瀇瀼瀇瀼瀇瀼瀇瀼瀇瀼

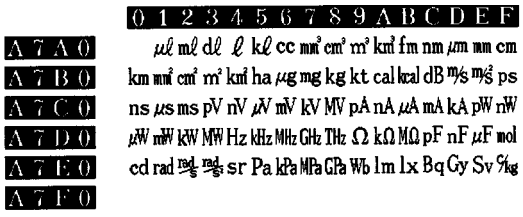


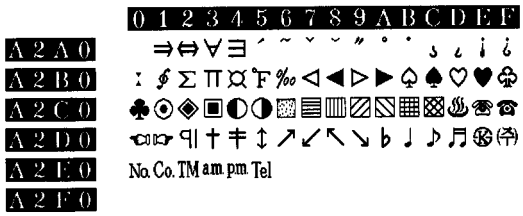
	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
F0	瓊	瓔	瓖	瓚	瓘	瓙	瓛	瓜	瓝	瓞	瓠	瓡	瓢	瓣	瓤	瓥
F1	曦	曩	曬	曫	曭	曯	曱	曲	曳	更	曷	曹	曺	曻	曼	曽
F2	灂	灃	灄	灅	灆	灇	灈	灉	灊	灋	灌	灍	灎	灏	灐	灑
F3	皭	皮	皯	皰	皱	皲	皳	皴	皵	皶	皷	皸	皹	皺	皻	皼
F4	矂	矃	矄	矅	矆	矇	矈	矉	矊	矋	矌	矍	矎	矏	矐	矑
F5	鑗	鑘	鑙	鑚	鑛	鑜	鑝	鑞	鑟	鑠	鑡	鑢	鑣	鑤	鑥	鑦
F6	鸖	鸗	鸘	鸙	鸚	鸛	鸜	鸝	鸞	鸟	鸠	鸡	鸢	鸣	鸤	鸥
F7	龗	龘	龙	龚	龛	龜	龝	龞	龟	龠	龡	龢	龣	龤	龥	龦

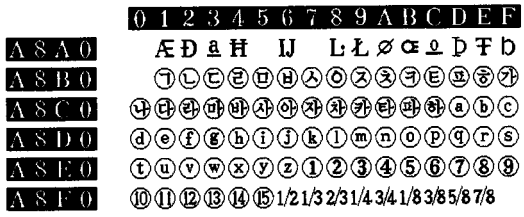

0 1 2 3 4 5 6 7 8 9 A B C D E F
F8 10
F8 50
F8 60
F8 70
F8 80
F8 90
F8 A0
F8 B0
F8 C0
F8 D0
F8 E0
F8 F0
0 1 2 3 4 5 6 7 8 9 A B C D E F
F9 10
F9 50
F9 60
F9 70
F9 80
F9 90
F9 A0
F9 B0
F9 C0
F9 D0
F9 E0
F9 F0

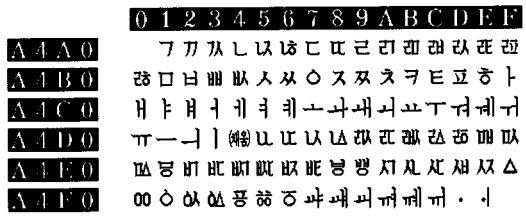
4-5) Korean Character Codes

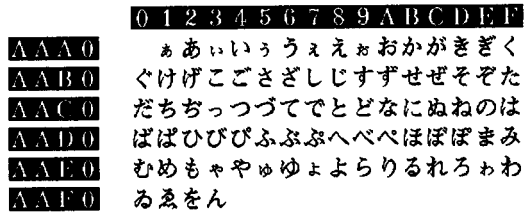


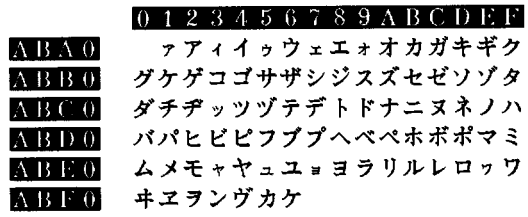


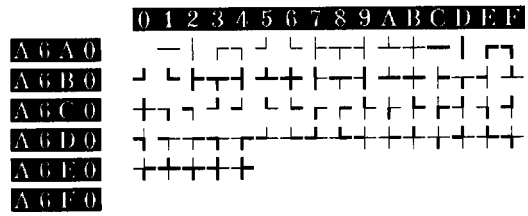


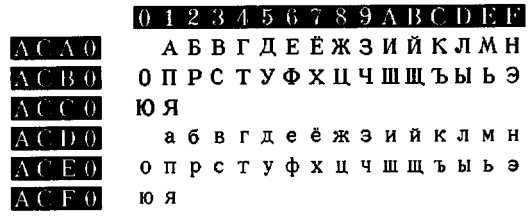












	0 1 2 3 4 5 6 7 8 9 A B C D E F
ADA0	
ADB0	
ADC0	
ADD0	
ADE0	
ADF0	

	0 1 2 3 4 5 6 7 8 9 A B C D E F
B3A0	끝끼끽낀낄낌낍낏낑나낙낚난날날
B3B0	낡낢남납낫났낭낮낯낱낳내낵낸낼냄
B3C0	냅냇냈냉냐냑냔냘냠냥너넉넋넌널넒
B3D0	넓넘넙넛넜넝넣네넥넨넬넴넵넷넸넹
B3E0	녀녁년널념녑녔녕녘녜녠노녹논놀놂
B3F0	놈놉놋농높놓놔놘놜놨뇌뇐뇔뇜뇝

	0 1 2 3 4 5 6 7 8 9 A B C D E F
AEA0	
AEB0	
AEC0	
AED0	
AEE0	
AEF0	

	0 1 2 3 4 5 6 7 8 9 A B C D E F
B4A0	뇟뇨뇩뇬뇰뇹뇻뇽누눅눈눋눌눔눕
B4B0	눗눙눠눴눼뉘뉜뉠뉨뉩뉴뉵뉼뉨뉩뉭
B4C0	느늑는늘늙늚늠늡늣능늦늪늬늰늴니
B4D0	닉닌닐닒님닙닛닝닢다닥닦단달달닭
B4E0	닮닯닳담답닷닸당닺닻닿대댁댄댈댐
B4F0	댑댓댔댕댜더덕덖던덜덜덟덟덤덥

	0 1 2 3 4 5 6 7 8 9 A B C D E F
AFA0	
AFB0	
AFC0	
AFD0	
AFE0	
AFF0	

	0 1 2 3 4 5 6 7 8 9 A B C D E F
B5A0	덧덩덫덮데덱덴델뎀뎁뎃뎄뎅뎌뎐
B5B0	뎔뎠뎡뎨뎬도독돈돋돌돎돐돔돕돗동
B5C0	돛돝돠돤돨돼됐되된될됨됩됫됴두둑
B5D0	둔둘둠둡둣둥둬뒀뒈뒝뒤뒨뒬뒵뒷뒹
B5E0	듀듄듈듐듕드득든듣들듦듬듭듯등듸
B5F0	디딕딘딛딜딤딥딧딨딩딪따딱딴딸

	0 1 2 3 4 5 6 7 8 9 A B C D E F
B0A0	가각간갇갈갉갊감갑값갓갔강갖갗
B0B0	같갚갛개객갠갤갬갭갯갰갱갸갹갼걀
B0C0	걋걍걔걘걜거걱건걷걸걺검겁것겄겅
B0D0	겆겉겊겋게겐겔겜겝겟겠겡겨격겪견
B0E0	결겹겸겹겻겼경곁계곈곌곕곗고곡곤
B0F0	곧골곪곬곯곰곱곳공곶과곽관괄괆

	0 1 2 3 4 5 6 7 8 9 A B C D E F
B6A0	땀땁땃땄땅땋때땍땐땔땜땝땟땠땡
B6B0	떠떡떤떨떪떰떱떳떴떵떻떼떽뗀뗄
B6C0	뗌뗍뗏뗐뗑뗘뗬또똑똔똘똥똬똴뙈뙤
B6D0	뙨뚜뚝뚠뚤뚫뚬뚱뛔뛰뛴뛸뜀뜁뜅뜨
B6E0	뜩뜬뜯뜰뜸뜹뜻띄띈띌띔띕띠띤띨띰
B6F0	띱띳띵라락란랄람랍랏랐랑랒랖랗

	0 1 2 3 4 5 6 7 8 9 A B C D E F
B1A0	괌괍괏광괘괜괠괩괬괭괴괵괸괼괌
B1B0	굅굇굉교굔굘굡굣구국군굳굴굵굶굻
B1C0	굼굽굿궁궂궈궉권궐궜궝궤궷귀귁귄
B1D0	귈귐귑귓규균귤그극근귿글긁금급긋
B1E0	긍긔기긱긴긷길긺김깁깃깅깆깊까깍
B1F0	깎깐깔깖깜깝깟깠깡깥깨깩깬깰깸

	0 1 2 3 4 5 6 7 8 9 A B C D E F
B7A0	래랙랜랠램랩랫랬랭랴략랸럇량러
B7B0	럭런럴럼럽럿렀렁렇레렉렌렐렘렙렛
B7C0	렝려력련렬렴렵렷렸령례롄롑롓로록
B7D0	론롤롬롭롯롱롸롼뢍뢨뢰뢴뢸룀룁룃
B7E0	룅료룐룔룝룟룡루룩룬룰룸룹룻룽뤄
B7F0	뤘뤠뤼뤽뤤뤨뤳뤵류륙륜률륨륩

	0 1 2 3 4 5 6 7 8 9 A B C D E F
B2A0	깸깻깼깽꺄꺅꺌꺼꺽꺾껀껄껌껍껏
B2B0	껐껑께껙껜껨껫껭껴껸껼껴꼈꼍꼐꼬
B2C0	꼭꼰꼲꼴꼼꼽꼿꽁꽃꽈꽉꽐꽜꽝꽤
B2D0	꽥꽹꾀꾄꾈꾐꾑꾕꾜꾸꾹꾼꿀꿇꿈꿉꿋
B2E0	꿎꿍꿏꿔꿜꿨꿩꿰꿱꿴꿸뀀뀁뀄뀌뀐
B2F0	뀔뀜뀝뀨끄끅끈끊끌끎끓끔끕끗끙

	0 1 2 3 4 5 6 7 8 9 A B C D E F
B8A0	륫륭르륵른를름릅릇릉릊릍릎리릭
B8B0	린릴림립릿링마막만많맏말맑맒맘맙
B8C0	맛망맞맡맣매맥맨맬맴맵맷맸맹맺먀
B8D0	먁먈먕머먹먼멀멂멈멉멋멍멎멓메멕
B8E0	멘멜멤멥멧몄몔며멱면멸몃몄명몇메
B8F0	모목몫몬몰몲몸몹못몽뫄뫈뫘뫙뫼

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
B9A0	뮌	뮐	뮙	뮛	뮝	묘	묜	묠	묩	묫	무	묵	묶	문	묻	
B9B0	물	묽	묾	묿	뭅	뭇	뭉	뭍	뭏	뭐	뭔	뭘	뭠	뭡	뭣	뭬
B9C0	뮈	뮌	뮐	뮤	뮨	뮬	뮴	뮷	므	믄	믈	믐	믓	미	믹	민
B9D0	믿	밀	밂	밈	밉	밋	밌	밍	밎	및	바	박	밖	밗	반	받
B9E0	발	밝	밟	밤	밥	밧	방	밭	배	백	밴	밸	뱀	뱁	뱃	뱄
B9F0	뱅	뱉	뱌	뱍	뱐	뱝	버	번	벋	벌	벎	범	법	벗		

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
BFA0	에	엑	엔	엘	엠	엡	엣	엥	여	역	엮	연	열	엶	엷	염
BFB0	엽	엾	엿	였	영	옅	옆	옇	예	옌	옐	옘	옙	옛	옜	옠
BFC0	오	옥	온	올	옭	옰	옳	옴	옵	옷	옹	옻	와	왁	완	
BFD0	왈	왐	왑	왓	왔	왕	왜	왝	왠	왬	왯	왱	외	웍	왼	욀
BFE0	욈	욉	욋	요	욕	욘	욜	욤	욥	욧	용	우	욱	운	울	
BFF0	욹	욺	움	웁	웃	웅	워	웍	원	월	웜	웝	웠	웡	웨	

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
BAA0	벙	벚	베	벡	벤	벧	벨	벰	벱	벳	벴	벵	벼	벽	변	
BAB0	별	볍	볏	볐	병	볕	볘	볜	보	복	볶	본	볼	봄	봅	봇
BAC0	봉	봐	봔	봤	봬	뵀	뵈	뵉	뵌	뵐	뵘	뵙	뵤	뵨	부	북
BAD0	분	붇	불	붉	붊	붐	붑	붓	붕	붙	붚	붜	붤	붰	붸	뷔
BAE0	뷕	뷘	뷜	뷩	뷰	뷴	뷸	뷺	뷻	뷽	브	븍	븐	블	븜	븝
BAF0	븟	비	빅	빈	빌	빎	빔	빕	빗	빙	빚	빛	빠	빡	빤	

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
C0A0	웨	웩	웰	웸	웹	웻	위	윅	윈	윌	윔	윕	윗	윙	유	
C0B0	육	윤	율	윰	윱	윳	융	윷	으	윽	은	을	읊	음	읍	읏
C0C0	응	읒	읓	읔	읕	읖	읗	의	읜	읠	읨	읫	이	익	인	일
C0D0	읽	읾	잃	임	입	잇	있	잉	잊	잎	자	작	잔	잖	잗	잘
C0E0	잚	잠	잡	잣	잤	장	잦	재	잭	잰	잴	잼	잽	잿	쟀	쟁
C0F0	쟈	쟉	쟌	쟎	쟐	쟘	쟙	쟤	쟨	쟬	저	적	전	절	젊	

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
C1A0	점	접	젓	정	젖	제	젝	젠	젤	젬	젭	젯	젱	져	젼	
C1B0	졀	졈	졉	졌	졍	졔	조	족	존	졸	졺	좀	좁	좃	종	좇
C1C0	좋	좌	좍	좔	좝	좟	좡	좨	좼	좽	죄	죈	죌	죔	죕	
C1D0	죗	죙	조	족	존	종	주	죽	준	줄	줅	줆	줌	줍	줏	중
C1E0	줘	줬	쥐	쥑	쥔	쥘	쥠	쥡	쥣	쥬	쥰	쥴	쥼	즈	즉	
C1F0	즌	즐	즘	즙	즛	증	지	직	진	짇	질	짊	짐	집	짓	

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
C2A0	징	짖	짙	짚	짜	짝	짠	짢	짤	짧	짬	짭	짯	짰	짱	
C2B0	째	짹	짼	쨀	쨈	쨉	쨋	쨌	쨍	쨔	쨘	쨩	쩌	쩍	쩐	쩔
C2C0	쩜	쩝	쩟	쩠	쩡	쩨	쪙	쪘	쪼	쪽	쫀	쫄	쫌	쫍	쫏	
C2D0	쫑	쫓	쫘	쫙	쫠	쫬	쫴	쬐	쬔	쬘	쬠	쬡	쬣	쭁	쭈	쭉
C2E0	쭌	쭐	쭘	쭙	쭝	쭤	쭸	쭹	쮜	쮸	쯔	쯤	쯧	쯩	찌	찍
C2F0	찐	찔	찜	찝	찡	찢	찧	차	착	찬	찮	찰	참	찹	찻	

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
C3A0	찼	창	찾	채	책	챈	챌	챔	챕	챗	챘	챙	챠	챤	챵	
C3B0	챨	참	챵	처	척	천	철	첨	첩	첫	첬	청	체	첵	첸	첼
C3C0	쳄	쳅	쳇	쳉	쳐	쳔	쳤	쳬	쳰	쳴	쳼	초	촉	촌	촐	촘
C3D0	촙	촛	총	촤	촨	촬	촹	최	쵠	쵤	쵬	쵭	쵯	쵱	쵸	춈
C3E0	추	축	춘	출	춤	춥	춧	충	춰	췄	췌	췐	취	췬	췰	췸
C3F0	췹	췻	츄	츈	츌	츔	츙	츠	측	츤	츨	츰	츱	츳	층	

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
C4A0	치	칙	친	칟	칠	칡	침	칩	칫	칭	카	칵	칸	칼	캄	
C4B0	캅	캇	캉	캐	캑	캔	캘	캠	캡	캣	캤	캥	카	캭	컁	커
C4C0	컥	컨	컫	컬	컴	컵	컷	컸	컹	케	켁	켄	켈	켐	켑	켓
C4D0	켕	켜	켠	켤	켬	켭	켯	켰	켱	켸	코	콕	콘	콜	콤	콥
C4E0	콧	콩	콰	콱	콴	콸	쾀	쾅	쾌	쾡	쾨	쾰	쿄	쿠	쿡	쿤
C4F0	쿨	쿰	쿱	쿳	쿵	숴	퉌	퉐	퉤	퉹	퀴	퀵	퀸	퀼		

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
BDA0	숯	숱	숲	숴	쉈	쉐	쉑	쉔	쉘	쉠	쉡	쉬	쉭	쉰	쉴	
BDB0	쉼	쉽	쉿	슁	슈	슉	슐	슘	슛	슝	스	슥	슨	슬	슭	슴
BDC0	습	슷	승	시	식	신	싣	실	싫	심	십	싯	싱	싶	싸	싹
BDD0	싻	싼	쌀	쌈	쌉	쌌	쌍	쌓	쌔	쌕	쌘	쌜	쌤	쌥	쌨	쌩
BDE0	썅	써	썩	썬	썰	썸	썹	썻	썽	쎄	쎈	쎌	쎈	쏘	쏙	
BDF0	쏜	쏟	쏠	쏢	쏨	쏩	쏭	쏴	쏵	쏸	쐈	쐐	쐤	쐬	쐰	

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
BEA0	쐴	쐼	쐽	쑈	쑤	쑥	쑨	쑬	쑵	쑹	쒀	쒔	쒜	쒸		
BEB0	쒼	쓩	쓰	쓱	쓴	쓸	씀	씁	씅	씀	씁	씌	씐	씔	씜	씩
BEC0	씬	씰	씸	씹	씻	씽	아	악	안	앉	않	알	앍	앎	앓	암
BED0	압	앗	았	앙	앝	앞	애	액	앤	앨	앰	앱	앳	앴	앵	야
BEE0	약	얀	얄	얇	얌	얍	얏	양	얕	얗	얘	얜	얠	얩	어	억
BEF0	언	얹	얻	얼	얽	얾	엄	업	없	엇	었	엉	엊	엌	엎	

	0 1 2 3 4 5 6 7 8 9 A B C D E F
C5A0	퀌퀍퀏퀑큐큔큘큠크큭큰클큼큽킁
C5B0	키킥킨킬킴킵킷킹타탁탄탈탉탐탑탓
C5C0	탔탕태택탠탤탬탭탯탰탱탸탕터턱턴
C5D0	털턺텀텁텃텄텅테텍텐텔템텝텟텡텨
C5E0	텬텼톈톈토톡톤톨톰톱톳통톺톼톤퇘
C5F0	퇴퇸퇫퇭툐투툭툰툴툼툽툿퉁퉈퉜

	0 1 2 3 4 5 6 7 8 9 A B C D I
CBA0	
CBB0	
CBC0	
CBD0	
CBE0	
CBF0	

	0 1 2 3 4 5 6 7 8 9 A B C D E F
C6A0	퉤튀튁튄튈튐튑튕튜튠튤튬튱트특
C6B0	튼톨틀틂틈틉톳틔틴틸팀팁팃팅파팍팎판팔팖팜팝팟팠팡팥
C6C0	팬팰팸팹팻팼팽퍄퍅퍼퍽펀펄펌펍펏펐펑페펙펜펠펨펩펫펭펴편펼폄
C6D0	폅폇폈평폐폘폡폣포폭폰폴폼폽폿퐁
C6E0	
C6F0	

	0 1 2 3 4 5 6 7 8 9 A B C D E F
CCA0	
CCB0	
CCC0	
CCD0	
CCE0	
CCF0	

	0 1 2 3 4 5 6 7 8 9 A B C D E F
C7A0	퐈퐝푀푄표푠푤푭푯푸푹푼푿풀품
C7B0	풋풉풋풍풔풩퓌퓐퓔퓜퓟퓨퓬퓰퓸퓻
C7C0	퓽프픈플픔픕픗피픽핀필핌핍핏핑하
C7D0	학한할핥함합핫항해핵핸핼햄햅햇했
C7E0	행햐향허헉헌헐헒험헙헛헝헤헥헨헬
C7F0	헴헵헷헹혀혁현혈혐협혓혔형혜혠

	0 1 2 3 4 5 6 7 8 9 A B C D E F
CDA0	
CDB0	
CDC0	
CDD0	
CDE0	
CDF0	

	0 1 2 3 4 5 6 7 8 9 A B C D E F
C8A0	혤혭호혹혼홀홅홈홉홋홍홑확환
C8B0	활홧황홰홱홴횃횅회획횐횔횜횝횟횡효
C8C0	횬횰횸횻후훅훈훌훑훔훗훙훠훤훨훰
C8D0	훵훼훽휀휄휑휘휙휜휠휨휩휫휭휴휵
C8E0	휸휼흄흇흉흐흑흔흖흗흘흙흠흡흣흥
C8F0	흩희흰흴흼흽힁히힉힌힐힘힙힛힝

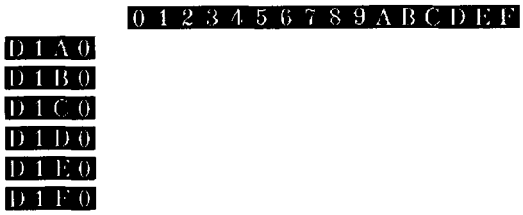
	0 1 2 3 4 5 6 7 8 9 A B C D E F
CEA0	
CEB0	
CEC0	
CED0	
CEE0	
CEF0	

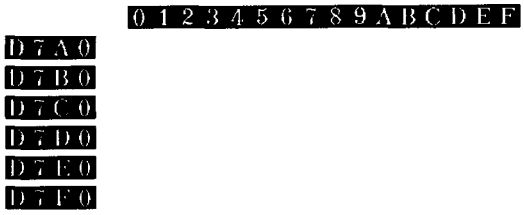
	0 1 2 3 4 5 6 7 8 9 A B C D E F
C9A0	
C9B0	
C9C0	
C9D0	
C9E0	
C9F0	

	0 1 2 3 4 5 6 7 8 9 A B C D E F
CFA0	
CFB0	
CFC0	
CFD0	
CFE0	
CFF0	

	0 1 2 3 4 5 6 7 8 9 A B C D E F
CAA0	
CAB0	
CAC0	
CAD0	
CAE0	
CAF0	

	0 1 2 3 4 5 6 7 8 9 A B C D E F
D0A0	
D0B0	
D0C0	
D0D0	
D0E0	
D0F0	


0 1 2 3 4 5 6 7 8 9 A B C D E F
D1A0
D1B0
D1C0
D1D0
D1E0
D1F0


0 1 2 3 4 5 6 7 8 9 A B C D E F
D7A0
D7B0
D7C0
D7D0
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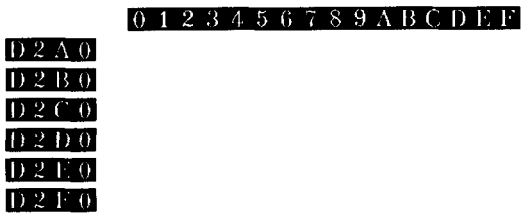
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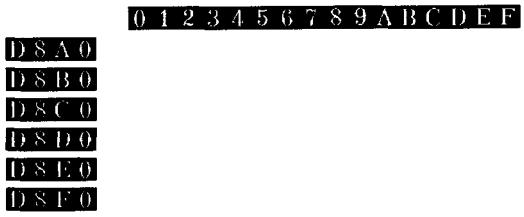
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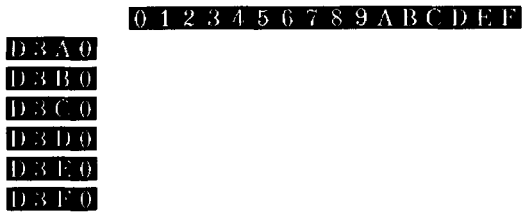
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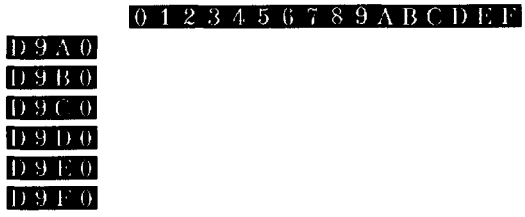
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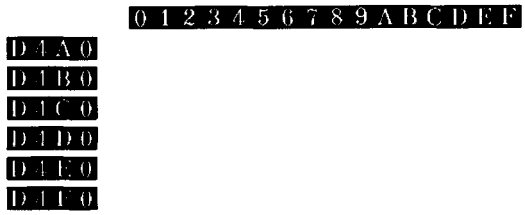
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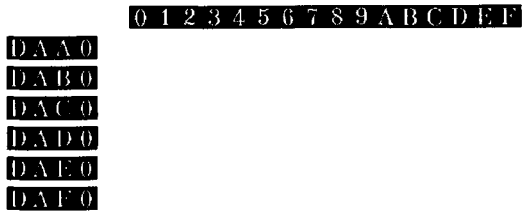
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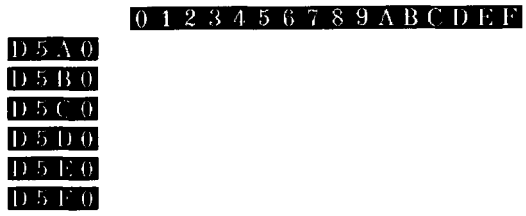
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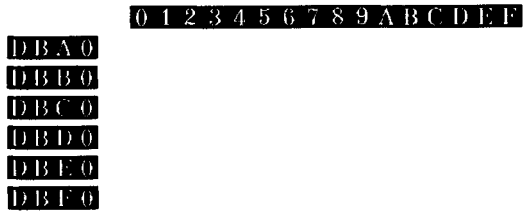
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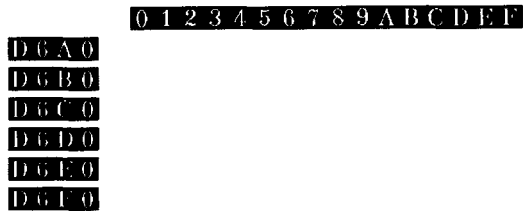
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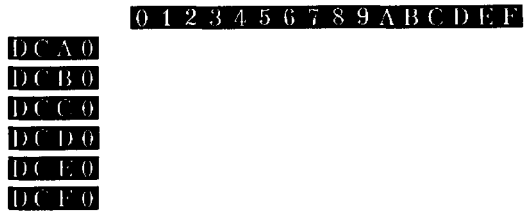
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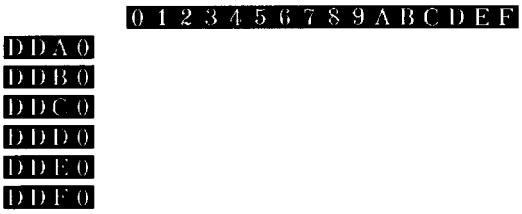
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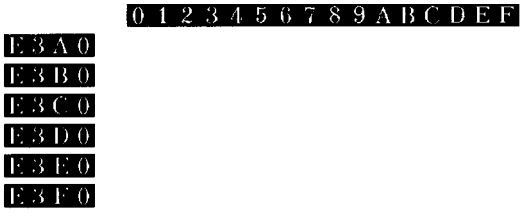
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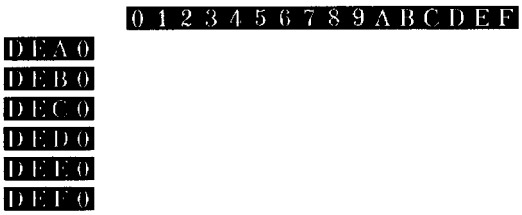
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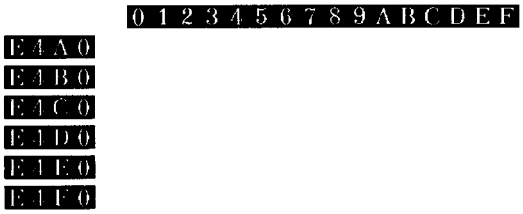
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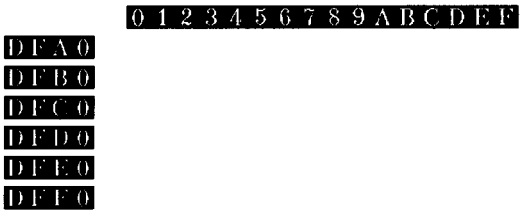
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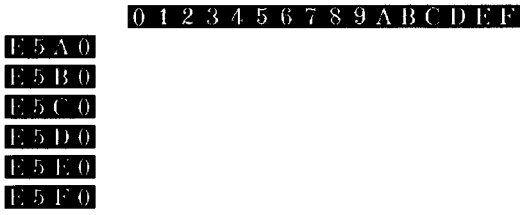
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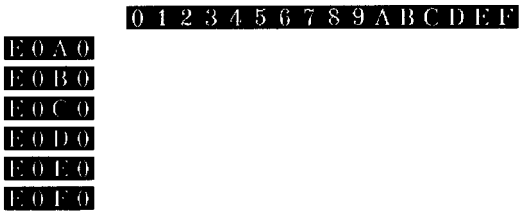
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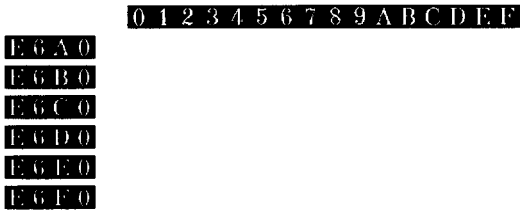
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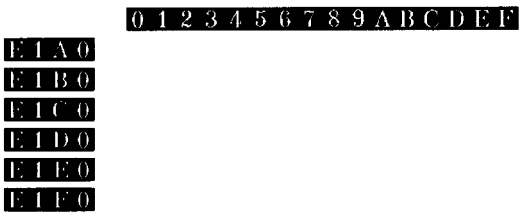
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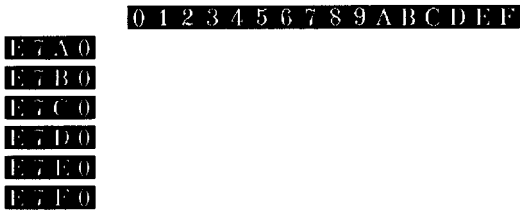
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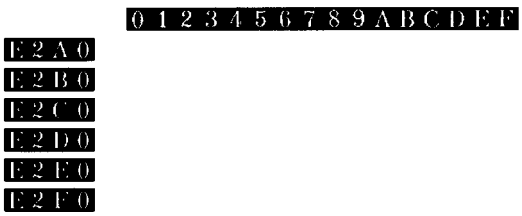
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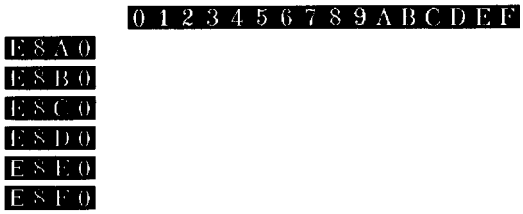
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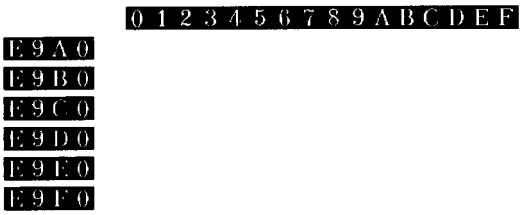
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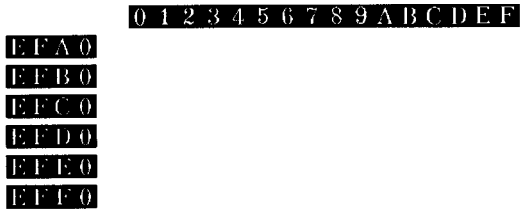
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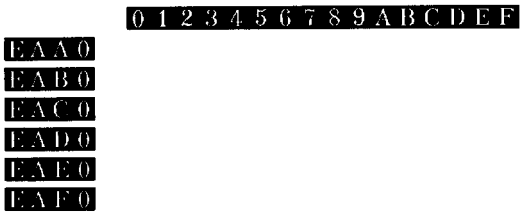
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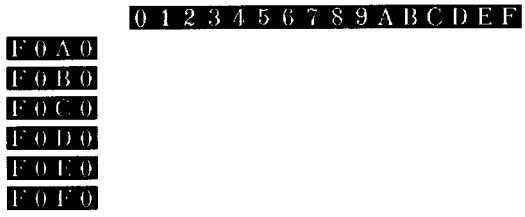
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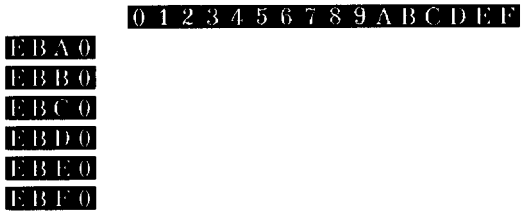
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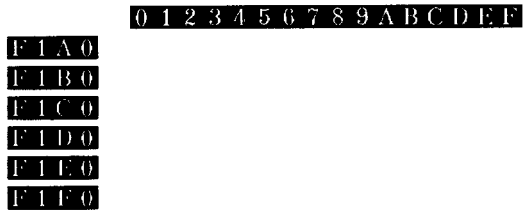
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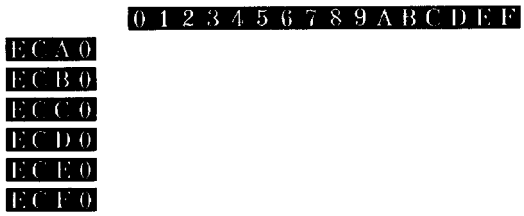
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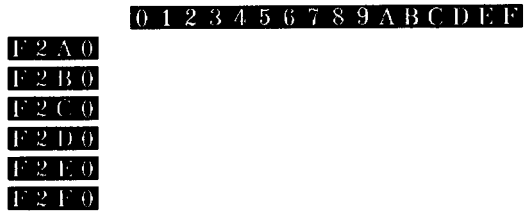
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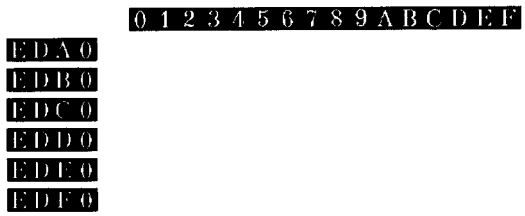
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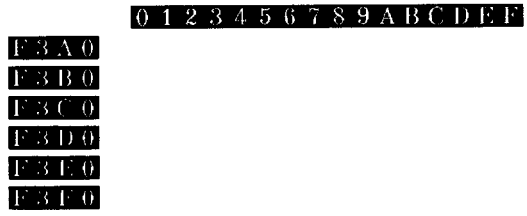
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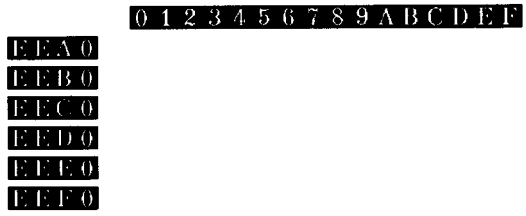
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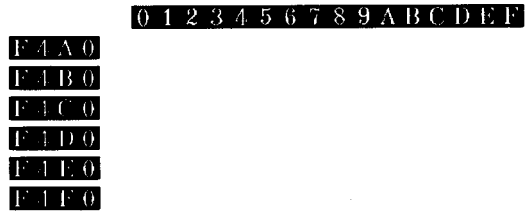
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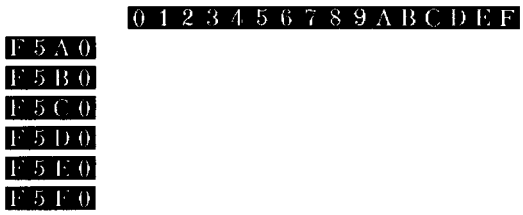
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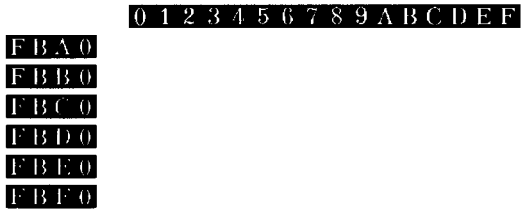
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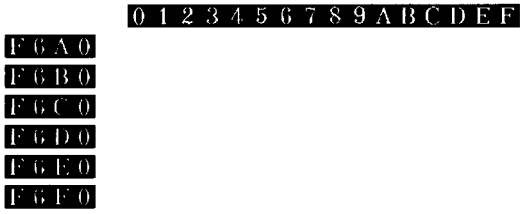
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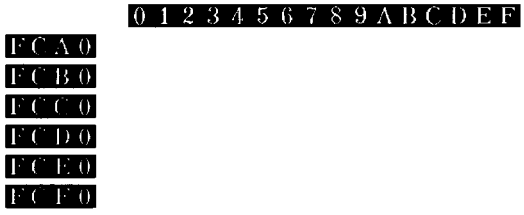
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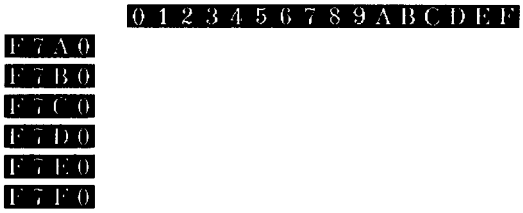
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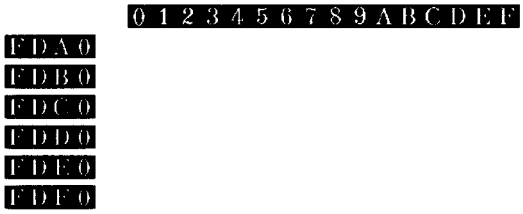
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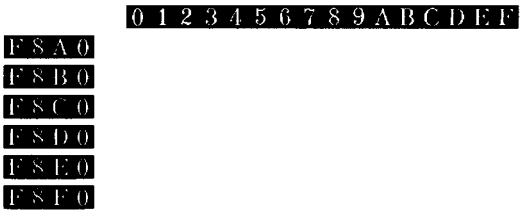
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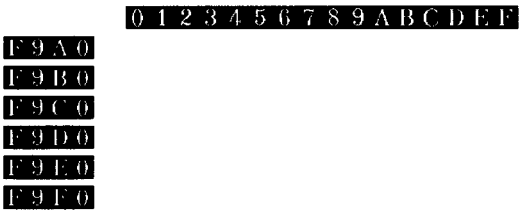
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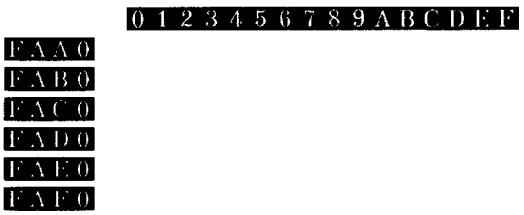
0 1 2 3 4 5 6 7 8 9 A B C D E F
FAA0
FAB0
FAC0
FAD0
FAE0
FAF0

5. APPENDIX

5-1) Appendix 1: Bar code specification details

Refer to the dedicated manuals for characteristics and methods of use for each bar code symbol.
This section describes precautions and methods for setting when printing with the printer.

Bar code widths are set for each bar code according to the mode. The following describes each mode and the dot counts.
The user must ensure the specified printing position and quiet zone at the position where the bar code begins.

5-1-1) Code 39

Code 39 represents numbers 0 to 9 and the letters of the alphabet from A to Z. These are the symbols most frequently used today in industry.

1. Length of characters in each mode

Items	Mode 1	Mode 2	Mode 3	Mode 4	Mode 5	Mode 6	Mode 7	Mode 8	Mode 9
Narrow Element Width	2 dots	3 dots	4 dots	2 dots	3 dots	4 dots	2 dots	3 dots	4 dots
Wide Element Width	6 dots	9 dots	12 dots	5 dots	8 dots	10 dots	4 dots	6 dots	8 dots
Ratio	1:3	1:3	1:3	1:2.5	1:2.7	1:2.5	1:2	1:2	1:2
Character Spacing	2 dots	3 dots	4 dots	2 dots	3 dots	4 dots	2 dots	3 dots	4 dots
Length of 1 Character	4 mm	6 mm	8 mm	3.625 mm	5.625 mm	7.25 mm	3.25 mm	4.875 mm	6.5 mm

(*) The length of 1 character includes the character spacing.

2. Regulations

The start and stop bar code (*) in Code 39 are automatically inserted.

5-1-2) Interleaved 2 of 5

Interleaved 2 of 5 represents numbers 0 to 9. Higher density of characters is possible and with JIS and EAN, and priting to cardboard for distribution has been standardized.

1) Narrow element width and length of symbols per 2 characters

Items	Mode 1	Mode 2	Mode 3	Mode 4	Mode 5	Mode 6	Mode 7	Mode 8	Mode 9
Narrow Element Width	2 dots	4 dots	6 dots	2 dots	4 dots	6 dots	2 dots	3 dots	4 dots
Wide Element Width	5 dots	10 dots	15 dots	4 dots	8 dots	12 dots	6 dots	9 dots	12 dots
Ratio	1:2.5	1:2.5	1:2.5	1:2	1:2	1:2	1:3	1:3	1:3
Length of 1 Character	4mm	8mm	12mm	3.5mm	7mm	10.5mm	4.5mm	6.75mm	9mm

2. Regulations

• By selecting interleaved 2 of 5 bar code symbols, start and stop patterns are automatically inserted.
• When the bar code data digit count is odd, a zero is added to the highest value digit.
• Details conform to standards for AIM, USS-12/5, ANSI and JIS x 0502.

5-1-3) JAN/EAN/UPC

Used numbers, not only the bar code symbols, are controlled using JAN, EAN and UPC as shared common commercial codes. Mainly, they are used for supermarkets such as shops and grocery stores.

1. Each mode and bar code width

Items		Mode 1	Mode 2	Mode 3
Module Width		2 dots	3 dots	4 dots
Bar code width (*)	JAN/EAN-8	16.75 mm	25.125 mm	33.5 mm
	JAN/EAN-13	23.75 mm	35.625 mm	47.5 mm
	UPC-A	23.75 mm	35.625 mm	47.5 mm
	UPC-E	12.75 mm	19.125 mm	25.5 mm

(*) Includes the guard bar (left/right/center) but not the white space.

2. Regulations

• JAN/EAN -8:

Data is in 7 or 8 digits. The command is ignored for others.
The check digit uses a modulus weight of 10/3 and is automatically applied.
When the calculated value and the numerical value of the 8th digit differ, the calculated value has priority.

• JAN/EAN -13:

Data is in 12 or 13 digits. The command is ignored for others.
The check digit uses a modulus weight of 10/3 and is automatically applied.
When the calculated value and the numerical value of the 13th digit differ, the calculated value has priority.

• UPC – A:

Data is in 11 or 12 digits. The command is ignored for others.
The check digit uses a modulus weight of 10/3 and is automatically applied.
When the calculated value and the numerical value of the 12th digit differ, the calculated value has priority.

• UPC – E:

Data is in 11 or 12 digits. The command is ignored for others.
The check digit uses a modulus weight of 10/3 and is automatically applied.
When the calculated value and the numerical value of the 12th digit differ, the calculated value has priority.
Data conversion to rectangles is automatic.
Data that cannot be shortened is processed as invalid data.

5-1-4) Code 128

These are bar code symbols that can print ASCII 128 characters. For that reason, use thereof is increasing.

1. Each module and module width

Items	Mode 1	Mode 2	Mode 3
Module Width	2 dots	3 dots	4 dots
Length of 1 Character (*)	2.75 mm	4.125 mm	5.5 mm

(*) Start and stob bars not included.

2. Regulations

When using <LF> with the command, control codes are not sent by the host PC, so the control codes are sent as data, as shown below.

• When sending the following data, it represents a 2 character set.
% (25H) represents %0 (25H 30H).
Control codes (00H to 1FH) represent 40H to 5FH applied behind %.
Control code (7FH) represents %5 (25H 35H).
Function codes represent 1 to 4 (31H to 34H) applied behind %.
Start codes represent 6 to 8 (36H to 38H) applied behind %.
• Stop code (SC)/Check character (CK) are automatically applied.
• When start code is omitted:
Uses START C when more than 4 digits continue after header.
Uses START A when initial data other than numbers are the control code.
Uses START B for other cases.

• 2 Character set code table

<Control Codes>

<Control Codes>

Code	Format
NUL 00H	%@ 25H 40H
SHO 01H	%A 25H 41H
STX 02H	%B 25H 42H
ETX 03H	%C 25H 43H
EOT 04H	%D 25H 44H
ENQ 05H	%E 25H 45H
ACK 06H	%F 25H 46H
BEL 07H	%G 25H 47H
BS 08H	%H 25H 48H
HT 09H	%I 25H 49H
LF 0AH	%J 25H 4AH
VT 0BH	%K 25H 4BH
FF 0CH	%L 25H 4CH
CR 0DH	%M 25H 4DH
SO 0EH	%N 25H 4EH
SI 0FH	%O 25H 4FH
DLE 10H	%P 25H 50H
DC1 11H	%Q 25H 51H
DC2 12H	%R 25H 52H
DC3 13H	%S 25H 53H
DC4 14H	%T 25H 54H
NAK 15H	%U 25H 55H
SYN 16H	%V 25H 56H
ETB 17H	%W 25H 57H
CAN 18H	%X 25H 58H
EM 19H	%Y 25H 59H
SUB 1AH	%Z 25H 5AH
ESC 1BH	%[25H 5BH
FC 1CH	%¥ 25H 5CH
GS 1DH	%] 25H 5DH
RS 1EH	%^ 25H 5EH
US 1FH	%_ 25H 5FH
DEL 7FH	%5 25H 35H

<Control Codes>

Code	Format
% 25H	%0 25H 30H

<Function Codes>

Code	Format	
FNC1	%1 25H 31H	☆
FNC2	%2 25H 32H	☆
FNC3	%3 25H 33H	☆
FNC4	%4 25H 34H	☆

<Start Codes>

Code	Format	
START A	%6 25H 36H	☆
START B	%7 25H 37H	☆
START C	%8 25H 38H	☆

5-1-5) Code 93

1. Each mode and module width

Items	Mode 1	Mode 2	Mode 3
Module Width	2 dots	3 dots	4 dots
Length of 1 Character (*)	2.25 mm	3.375 mm	4.5 mm

(*) Start and stob bars not included.

2. Regulations
   - Start/stop codes are automatically applied.
   - Check character (C, K) is automatically applied.
   - 2 character set expression conforms to Code 128.

   However, items marked with a star are codes that can only be used with Code 128, and not with Code 93.

5-1-6) NW7 (CODERBAR)

NW7 normally uses either A through D as the start/stop codes and represents special symbols (- (minus sign)/$ (dollar sign)/: (colon)// (slash)/. (period)/+ (plus sign) between 0 to 9.
These are used as carrier package marking bar codes, DPE (photo prints) and for medical related industries (USA).

1. Length of 1 character in each mode

Items	Mode 1	Mode 2	Mode 3	Mode 4	Mode 5	Mode 6	Mode 7	Mode 8	Mode 9
Narrow Element Width	2	3	4	2	3	4	2	3	4
Wide Element Width	6	9	12	5	8	10	4	6	8
Ratio	1:3	1:3	1:3	1:2.5	1:2.7	1:2.5	1:2	1:2	1:2
Character Spacing (Dots)	2	3	4	2	3	4	2	3	4
Length of 1 Character (Normally mm) (Width mm)	3 3.5	4.5 5.25	6 7	2.75 3.125	4.25 5.125	5.5 6.25	2.5 2.75	3.75 4.125	5 5.5

- With NW7, lengths differ because narrow elements and wide elements are included according to the characters.
- Normal characters (narrow: 5, wide: 2) and numbers (0 to 9), - and $
- Wide characters (narrow: 4, wide: 3) ,/,.,+, A to D
- Character spaces are included in 1 character length.

5-2) Appendix 2: Status Specifications

5-2-1) ENQ Command Status

This status is the one the printer transmits using the ENQ command.

Bit	Contents	Status		Model Compatability						
		"0"	"1"	TSP800	TSP700	TSP600	TUP900			
7	Conversion SW	OPEN	CLOSE	OK	OK	OK	No			
6	Overrun Error	No	Yes	OK	OK	OK	OK			
5	Reception Buffer Empty	Has Data	Empty	OK	OK	OK	OK			
4	Fixed at 0		-	-	-	-	-			
3	Paper end	Paper	No Paper	OK	OK	OK	OK			
2	Other Errors	No	Yes	OK	OK	OK	OK			
1	Framing Error	No	Yes	OK	OK	OK	OK			
0	Parity Error	No	Yes	OK	OK	OK	OK			

• Overrun errors/Framing errors/Parity errors

These errors occur when using a serial I/F.

These errors are after holding the error and using this command to inquire the status and the error status is sent.

• Other Errors

Indicates non-recoverable errors and cover open errors.

5-2-2) EOT Command Status

This status is the one the printer transmits using the EOT command.

Bit	Contents	Status		Model Compatability						
		"0"	"1"	TSP800	TSP700	TSP600	TUP900			
7	Fixed at 0		-	-	-	-	-			
6	Presenter Paper Jam Error	No	Yes	No	No	No	OK			
5	Paper Near-end (Outer Side)	Paper	No Paper	No	No	No	No			
4	Fixed at 1		-	-	-	-	-			
3	Paper end	Paper	No Paper	OK	OK	OK	OK			
2	Paper Near-end (Inner Side)	Paper	No Paper	OK	OK	OK	OK			
1	BINDING MEDIA Error	No	Yes	No	No	No	OK			
0	Fixed at 0		-	-	-	-	-			

• BM Error

On models that use a common PE and BM sensor, if a continuous error is detected beyond a determined amount, it indicates not a black mark error, but a paper out error.

5-2-3) Automatic Status

Automatic status is a group of states that are automatically returned from the printer to the host when the printer's status has changed. Automatic status is composed of "Header – 1," "Header – 2" and "plurality of bytes of the printer status and is continuously returned to the host. The host always uses an identifying method to identify the data for every byte received.
(It is possible that Xon/Xoff codes are exceptionally mixed in the automatic status in the Xon/Xoff mode (when using a serial I/F), so it is necessary to consider that on the receiving side.)
The valid/invalid conditions of the automatic status abide by the DIPSW settings for the initial values.
It is possible to change the conditions using the ESC RS a n command after turning ON the power.
Also, it is possible to get the automatic status using the ESC ACK SOH command, regardless of the valid/invalid conditions.

1. Header – 1

Header – 1 is the 1 byte length information transmitted at the head of the automatic status.
The table below shows the composition of the Header – 1. Header – 1 represents the entire status transmission byte count, including Header – 1, using bit 1 to bit 3 and bit 5. The host gets the transmission byte information and always receives the status data for that amount transmission bytes. For reference, the table below shows the relationship of actual transmission bytes and the Header – 1. Because the bit 0 that indicates that this is the Header – 1 is normally 1 (the second byte and beyond is 0), to detect the Header – 1, it is acceptable to verify that bit 0 is 1 and bit 4 = 0 for this data. Note that bit 6 is for future expansion and is ignored in host-side processes.

<Header – 1 (First Byte)>

Bit	Contents	Status		Model Compatability						
		"0"	"1"	TSP800	TSP700	TSP600	TUP900			
7	Fixed at 0		-	-	-	-	-			
6	Reserved (Fixed at 0)		-	-	-	-	-			
5	Printer Status Byte Count			OK	OK	OK	OK			
4	Fixed at 0		-	-	-	-	-			
3	Printer Status Byte Count			OK	OK	OK	OK			
2	Printer Status Byte Count			OK	OK	OK	OK			
1	Printer Status Byte Count			OK	OK	OK	OK			
0	Fixed at 1	-		-	-	-	-			

Actual transmission byte count and header – 1 table

Transmission Byte Count n ($7 \leq n \leq 15$)	Header – 1
7	00001111B (0F Hex)
8	00100001B (21 Hex)
9	00100011B (23 Hex)
10	00100101B (25 Hex)
11	00100111B (27 Hex)
12	00101001B (29 Hex)
13	00101011B (2B Hex)
14	00101101B (2D Hex)
15	00101111B (2F Hex)

2. Header -2

Header -2 is the 1 byte length information transmitted from the second byte of the automatic status. The table below shows the composition of the Header -2.

Header -2 represents the automatic status version (called automatic status version below) using bit 1 to bit 3 and bit 5. For reference, the table below shows the relationship of actual version bytes and the Header -2. The automatic status version will be used as new information is added to the printer status bit positions that were empty, by adding new functions in the future.

When the host does not control the automatic status version, it is acceptable to ignore Header – 2 received.

<Header -2 (Second Byte)>

Bit	Contents	Status		Model Compatability						
		"0"	"1"	TSP800	TSP700	TSP600	TUP900			
7	Fixed at 0		-	-	-	-	-			
6	Not Used (Fixed at 0)		-	-	-	-	-			
5	Version No.			OK	OK	OK	OK			
4	Fixed at 0		-	-	-	-	-			
3	Version No.			OK	OK	OK	OK			
2	Version No.			OK	OK	OK	OK			
1	Version No.			OK	OK	OK	OK			
0	Fixed at 0	-		-	-	-	-			

Actual automatic status version and header -2 table

Version No. n	Header -2
1	00000010B (02 Hex)
2	00000100B (04 Hex)
3	00000110B (06 Hex)
4	00001000B (08 Hex)
5	00001010B (0A Hex)
6	00001100B (0C Hex)
7	00001110B (0E Hex)
8	00100000B (20 Hex)
9	00100010B (22 Hex)
• • •	• • •
30	01101100B (6C Hex)
31	01101110B (6E Hex)

Printer Status Version

Model Name	Version No.	Status
TSP800	1 (02 Hex)	Up to printer status 5 (7th byte) loaded
	1 (02 Hex)	Up to printer status 6 (8th byte) loaded, Ver 4.0 and later
TSP700	1 (02 Hex)	Up to printer status 5 (7th byte) loaded
	1 (02 Hex)	Up to printer status 6 (8th byte) loaded, Ver 3.0 and later
TSP600	1 (02 Hex)	Up to printer status 5 (7th byte) loaded
	1 (02 Hex)	Up to printer status 6 (8th byte) loaded, Ver 3.0 and later
TUP900	2 (04 Hex)	Up to printer status 6 (8th byte) loaded

• Printer Status

Printer status is the status of the printer sent from the third byte of the automatic status.

Printer status is returned for (transmitted byte count – 2 in Header – 1).

Printer status is always updated for new information. (No log exists.) The following shows the composition of the status.

<Printer status 1 Printer status (Third Byte)>

Bit	Contents	Status		Model Compatability						
		"0"	"1"	TSP800	TSP700	TSP600	TUP900			
7	Fixed at 0		-	-	-	-	-			
6	OFFLINE By Switch Input	No	Yes	No	No	No	No			
5	Cover Status	Closed	Open	OK	OK	OK	OK			
4	Fixed at 0		-	-	-	-	-			
3	ONLINE/OFFLINE Status	ONLINE	OFFLINE	OK	OK	OK	OK			
2	Conversion SW	Open	Closed	OK	OK	OK	No			
1	<ETB> Command	Not Executed	Executed	OK	OK	OK	OK			
0	Fixed at 0		-	-	-	-	-			

• <ETB> Command

Cleared when received at the host (by clearing bit 1 to 0, automatic status is not targeted to occur).

<Printer status 2 Error Information (Fourth Byte)>

Bit	Contents	Status		Model Compatability						
		"0"	"1"	TSP800	TSP700	TSP600	TUP900			
7	Fixed at 0		-	-	-	-	-			
6	Stopped by high head temperature	Not stopped	Stopped	OK	OK	OK	OK			
5	Non-recoverable Error	No	Yes	OK	OK	OK	OK			
4	Fixed at 0		-	-	-	-	-			
3	Auto-cutter Error	No	Yes	OK	OK	OK	OK			
2	Mechanical Error	No	Yes	No	No	No	No			
1	Not Used (Fixed at 0)			-	-	-	-			
0	Fixed at 0		-	-	-	-	-			

<Printer status 3 Error Information (Fifth Byte)>

Bit	Contents	Status		Model Compatability						
		"0"	"1"	TSP800	TSP700	TSP600	TUP900			
7	Fixed at 0		-	-	-	-	-			
6	Overrun Error	No	Yes	OK	OK	OK	OK			
5	Command Error (in Page Mode)	No	Yes	OK	No	No	No			
4	Fixed at 0		-	-	-	-	-			
3	BM Error	No	Yes	No	No	No	OK			
2	Presenter Paper Jam Error	No	Yes	No	No	No	OK			
1	Head Up Error	No	Yes	No	No	No	No			
0	Fixed at 0		-	-	-	-	-			

• Overrun Error

Overrun errors cleared to 0 when returned to host.

Occurs only when using a serial I/F.

• BM Error

On models that use a common PE and BM sensor, if a continuous error is detected beyond a determined amount, it indicates not a black mark error, but a paper out error.

<Printer status 4 Sensor Information (Sixth Byte)>

Bit	Contents	Status		Model Compatability						
		"0"	"1"	TSP800	TSP700	TSP600	TUP900			
7	Fixed at 0		-	-	-	-	-			
6	Not Used (Fixed at 0)		-	-	-	-	-			
5	Not Used (Fixed at 0)		-	-	-	-	-			
4	Fixed at 0		-	-	-	-	-			
3	Paper end	Paper	No Paper	OK	OK	OK	OK			
2	Paper Near-end (Inner Side)	Paper	No Paper	OK	OK	OK	OK			
1	Paper Near-end (Outer Side)	Paper	No Paper	No	No	No	No			
0	Fixed at 0		-	-	-	-	-			

<Printer status 5 Sensor Information (Seventh Byte)>

Bit	Contents	Status		Model Compatability						
		"0"	"1"	TSP800	TSP700	TSP600	TUP900			
7	Fixed at 0		-	-	-	-	-			
6	Not Used (Fixed at 0)		-	-	-	-	-			
5	Not Used (Fixed at 0)		-	-	-	-	-			
4	Fixed at 0		-	-	-	-	-			
3	Slip BOF Detector	Paper	No Paper	No	No	No	No			
2	Slip TOF Detector	Paper	No Paper	No	No	No	No			
1	Presenter Paper Detector	No Paper	Paper	No	No	No	No			
0	Fixed at 0		-	-	-	-	-			

<Printer status 6 ETB Counter (Eighth Byte)>

Bit	Contents	Status		Model Compatability						
		"0"	"1"	TSP800	TSP700	TSP600	TUP900			
7	Fixed at 0		-	-	-	-	-			
6	ETB Counter Bit-4			OK	OK	OK	OK			
5	ETB Counter Bit-3			OK	OK	OK	OK			
4	Fixed at 0		-	-	-	-	-			
3	ETB Counter Bit-2			OK	OK	OK	OK			
2	ETB Counter Bit-1			OK	OK	OK	OK			
1	ETB Counter Bit-0			OK	OK	OK	OK			
0	Fixed at 0		-	-	-	-	-			

(*) ETB Counter

This counter is the 5 bit ETB counter.
(It counts from 0 to 31. When ther counter overflows, it counts up from 31 to 0.)
This counter is incremented by 1 using the <ETB> command.
The ETB counter is initialized by the following commands. When doing so, ASB ETB status is cleared.
However, when initializing the ETB counter, ASB is not transmitted.

<ETB Counter Initialization Commands>
• <ESC> <RS> e n : ETB Counter Initialization
• <CAN> : Cancel print data and initialize commands

<Note>
Do not use ENQ, EOT, ESC, ACK and SOH when automatic status is valid. Invalidate the automatic status in advance using the DIPSW (memory switch) or the ESC RS a n command to query these.

Status identification method

Command/Functions	Status							
	bit7	bit6	bit5	bit4	bit3	bit2	bit1	bit0
XON	0	0	0	1	0	0	0	1
XOFF	0	0	0	1	0	0	1	1
ENQ	*	*	*	0	*	*	*	*
EOT	*	*	*	1	*	*	*	0
ASB (Header – 1)	0	*	*	0	*	*	*	1
ASB (Other than Header – 1)	0	*	*	0	*	*	*	0

Indicates 0 bit is fixed at 0/Indicates 1 is fixed at 1/Inidcates * variable bit.

5-3) Appendix 3: Blank Code Page Configuration

Blank code pages are character code tables that are empty from character code 80H to FFH. They can be specified using the command below.

- ESC GS t n（n=255)

Also, it is possible to write data to the blank code page area using the command below.

- ESC GS = ...

1. Example configuration of Font A data. (12 x 24 font)

	MSB							LSB		MSB							LSB
d1									d2					0	0	0	0
d3					•	•	•	•	d4					0	0	0	0
d5			•	•	•	•	•	•	d6	•	•			0	0	0	0
d7			•	•					d8	•	•			0	0	0	0
d9		•	•						d10		•	•		0	0	0	0
d11		•	•						d12		•	•		0	0	0	0
d13		•	•						d14		•	•		0	0	0	0
d15									d16		•	•		0	0	0	0
d17									d18	•	•			0	0	0	0
d19									d20	•	•			0	0	0	0
d21								•	d22	•				0	0	0	0
d23							•	•	d24					0	0	0	0
d25							•	•	d26					0	0	0	0
d27						•	•		d28					0	0	0	0
d29					•	•	•		d30					0	0	0	0
d31				•	•	•			d32					0	0	0	0
d33				•	•				d34					0	0	0	0
d35			•	•					d36					0	0	0	0
d37		•	•	•					d38					0	0	0	0
d39		•	•	•	•	•	•	•	d40	•	•	•		0	0	0	0
d41		•	•	•	•	•	•	•	d42	•	•	•		0	0	0	0
d43									d44					0	0	0	0
d45									d46					0	0	0	0
d47									d48					0	0	0	0

Fig. A-1 12 x 24 Font

2. Example configuration of Font B data. (9 x 24 font)
The STAR mode is not loaded with Font B. However, when registering data, Font A and Font B must be registered as a set. When doing so, Font B data can be zero data.

	MSB						LSB		MSB							LSB
d1									d2		0	0	0	0	0	0	0
d3				•	•	•			d4		0	0	0	0	0	0	0
d5			•	•	•	•	•		d6		0	0	0	0	0	0	0
d7			•	•		•	•	•	d8		0	0	0	0	0	0	0
d9		•	•				•	•	d10		0	0	0	0	0	0	0
d11		•	•				•	•	d12		0	0	0	0	0	0	0
d13		•	•				•	•	d14		0	0	0	0	0	0	0
d15							•	•	d16		0	0	0	0	0	0	0
d17							•	•	d18		0	0	0	0	0	0	0
d19							•	•	d20		0	0	0	0	0	0	0
d21						•	•	•	d22		0	0	0	0	0	0	0
d23					•	•	•	•	d24		0	0	0	0	0	0	0
d25					•	•	•		d26		0	0	0	0	0	0	0
d27				•	•	•			d28		0	0	0	0	0	0	0
d29			•	•	•				d30		0	0	0	0	0	0	0
d31			•	•					d32		0	0	0	0	0	0	0
d33			•	•					d34		0	0	0	0	0	0	0
d35		•	•	•					d36		0	0	0	0	0	0	0
d37		•	•	•					d38		0	0	0	0	0	0	0
d39		•	•	•	•	•	•	•	d40		0	0	0	0	0	0	0
d41		•	•	•	•	•	•	•	d42		0	0	0	0	0	0	0
d43									d44		0	0	0	0	0	0	0
d45									d46		0	0	0	0	0	0	0
d47									d48		0	0	0	0	0	0	0

Fig. A-2 9 x 24 Font

6. SPECIAL APPENDIX COMMAND LIST BY MODEL

Standard Commands

Class	Commands	Model Name						
		TSP800	TSP700	TSP600	TUP900			
Font style And Character set	ESC GS t	OK	OK	OK	OK			
	ESC GS =	V 3.0 or later	OK	OK	OK			
	ESC R	OK	OK	OK	OK			
	ESC /	OK	OK	OK	OK			
	ESC SP	OK	OK	OK	OK			
	ESC M	OK	OK	OK	OK			
	ESC P	OK	OK	OK	OK			
	ESC :	OK	OK	OK	OK			
	ESC p (not recommended)	OK	OK	OK	OK			
	ESC g	Spec. A	Spec. A	Spec. A	Spec. B			
Character expansion setting	ESC i	OK	OK	OK	OK			
	ESC W	OK	OK	OK	OK			
	ESC h	OK	OK	OK	OK			
	SO	OK	OK	OK	OK			
	DC4	OK	OK	OK	OK			
	ESC SO	OK	OK	OK	OK			
	ESC DC4	OK	OK	OK	OK			
Print mode	ESC E	OK	OK	OK	OK			
	ESC F	OK	OK	OK	OK			
	ESC -	OK	OK	OK	OK			
	ESC _	OK	OK	OK	OK			
	ESC 4	OK	OK	OK	OK			
	ESC 5	OK	OK	OK	OK			
	SI	OK	OK	OK	OK			
	DC2	OK	OK	OK	OK			
Line spacing	LF	OK	OK	OK	OK			
	CR	OK	OK	OK	OK			
	ESC a	OK	OK	OK	OK			
	ESC z	OK	OK	OK	OK			
	ESC 0	OK	OK	OK	OK			
	ESC J	OK	OK	OK	OK			
	ESC I	OK	OK	OK	OK			

Class	Commands	Model Name						
		TSP800	TSP700	TSP600	TUP900			
Page control	FF	OK	OK	OK	OK			
	ESC C	OK	OK	OK	OK			
	ESC C 0	OK	OK	OK	OK			
	VT	OK	OK	OK	OK			
	ESC B	OK	OK	OK	OK			
Horizontal direction position	ESC 1	Spec. A	Spec. A	Spec. A	Spec. B			
	ESC Q	Spec. A	Spec. A	Spec. A	Spec. B			
	HT	OK	OK	OK	OK			
	ESC D	OK	OK	OK	OK			
	ESC GS A	OK	OK	OK	OK			
	ESC GS R	OK	OK	OK	OK			
	ESC GS a	OK	OK	OK	OK			
Download	ESC &	OK	OK	OK	OK			
	ESC %	OK	OK	OK	OK			
Bit image Graphics	ESC K	OK	OK	OK	OK			
	ESC L	OK	OK	OK	OK			
	ESC k	OK	OK	OK	OK			
	ESC X	OK	OK	OK	OK			
Logo	ESC FS q	OK	OK	OK	OK			
	ESC FS p	OK	OK	OK	OK			
Bar codes	ESC b	Spec. A	Spec. A	Spec. A	Spec. B			
Cutter control	ESC d	OK	OK	OK	OK			
External device Drive	ESC BEL	OK	OK	OK	No			
	BEL	OK	OK	OK	No			
	FS	OK	OK	OK	No			
	SUB	OK	OK	OK	No			
	EM	OK	OK	OK	No			
Status	ESC RS a	OK	OK	OK	OK			
	ESC ACK SOH	OK	OK	OK	OK			
	ENQ	OK	OK	OK	OK			
	EOT	OK	OK	OK	OK			

Class	Commands	Model Name						
		TSP800	TSP700	TSP600	TUP900			
Chinese characters	ESC p	OK	OK	OK	OK			
	ESC q	OK	OK	OK	OK			
	ESC $	OK	OK	OK	OK			
	ESC s	OK	OK	OK	OK			
	ESC t	OK	OK	OK	OK			
	ESC r	Spec. A	Spec. A	Spec. A	Spec. B			
Others	CAN	OK	OK	OK	OK			
	ESC @	OK	OK	OK	OK			
	ESC GS #	Spec. A V 3.0 or later	Spec. A	Spec. A	Spec. B			
	ESC ?	OK	OK	OK	OK			

(*) Chinese character commands

• Chinese character control commands are ignored on printers not installed with Chinese character fonts (those intended for overseas).

• All Chinese character control commands are ignored if the specification for the location of use is specified as SBCS (single byte countries) by the memory switch.

• Raster related commands

Class	Commands	Model Name						
		TSP800	TSP700	TSP600	TUP900			
Raster	ESC * r R	Ver. 2.0 or later	OK	OK	OK			
	ESC * r A	Ver. 2.0 or later	OK	OK	OK			
	ESC * r B	Ver. 2.0 or later	OK	OK	OK			
	ESC * r C	Ver. 2.0 or later	OK	OK	OK			
	ESC * r D	Ver. 2.0 or later	OK	OK	No			
	ESC * r E	Spec. A Ver. 2.0 or later	Spec. A	Spec. A	Spec. B			
	ESC * r F	Spec. A Ver. 2.0 or later	Spec. A	Spec. A	Spec. B			
	ESC * r P	Ver. 2.0 or later	OK	OK	OK			
	ESC * r Q	Ver. 2.0 or later	OK	OK	OK			
	ESC * r m l	Ver. 2.0 or later	OK	OK	OK			
	ESC * r m r	Ver. 2.0 or later	OK	OK	OK			
	ESC * r T	Ver. 2.0 or later	OK	OK	OK			
	ESC * r K	Ver. 2.0 or later	OK	OK	OK			
	b n1 n2 d1...dk	Ver. 2.0 or later	OK	OK	OK			
	k n1 n2 d1...dk	Ver. 2.0 or later	OK	OK	OK			
	ESC FF NUL	Ver. 2.0 or later	OK	OK	OK			
	ESC EOT NUL	Ver. 2.0 or later	OK	OK	OK			

• Black mark related commands

Class	Commands	Model Name						
		TSP800	TSP700	TSP600	TUP900			
Black mark related commands	ESC d	OK	OK	OK	OK			
	FF	OK	OK	OK	OK			
	ESC C	OK	OK	OK	OK			
	ESC C 0	OK	OK	OK	OK			
	VT	OK	OK	OK	OK			
	ESC B	OK	OK	OK	OK			
	ESC N	OK	OK	OK	No			
	ESC O	OK	OK	OK	No			

• 2 color printing related commands

Class	Commands	Model Name						
		TSP800	TSP700	TSP600	TUP900			
2 color printing related commands	ESC RS c	Ver. 4.0 or later	Ver. 2.0 or later	Ver. 2.0 or later	OK			
	ESC RS C	Spec. A Ver. 4.0 or later	Spec. A Ver. 4.0 or later	Spec. A Ver. 4.0 or later	Spec. B			
	ESC 4	Ver. 4.0 or later	Ver. 2.0 or later	Ver. 2.0 or later	No			
	ESC 5	Ver. 4.0 or later	Ver. 2.0 or later	Ver. 2.0 or later	No			
	ESC RS d	Ver. 4.0 or later	Ver. 2.0 or later	Ver. 2.0 or later	OK			
	ESC RS r	Ver. 4.0 or later	Ver. 2.0 or later	Ver. 2.0 or later	OK			
	ESC FS q	Ver. 4.0 or later	Ver. 2.0 or later	Ver. 2.0 or later	OK			
	ESC FS p	Ver. 4.0 or later	Ver. 2.0 or later	Ver. 2.0 or later	OK			

• Presenter related commands

Class	Commands	Model Name						
		TSP800	TSP700	TSP600	TUP900			
Presenter related commands	ESC SYN 0	No	No	No	OK			
	ESC SYN 1	No	No	No	OK			
	ESC SYN 3	No	No	No	OK			
	ESC SYN 4	No	No	No	OK			

ELECTRONIC PRODUCTS DIVISION
STAR MICRONICS CO., LTD.
536 Nanatsushinya,
Shimizu, Shizuoka, 424-0066 Japan
Tel : 0543-47-0112
Fax: 0543-48-5013

OVERSEAS SUBSIDIARY COMPANIES
STAR MICRONICS AMERICA, INC.
1150 King Georges Post Road, Edison,
NJ 08837-3729 U.S.A.
Tel : 732-623-5555
Fax: 732-623-5590
http://www.starmicronics.com

STAR MICRONICS U.K. LTD.
Star House, Peregrine Business
Park, Gomm Road, High Wycombe,
Bucks, HP13 7DL, U.K.
Tel : 01494-471111
Fax: 01494-473333
http://www.starmicronics.co.uk

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